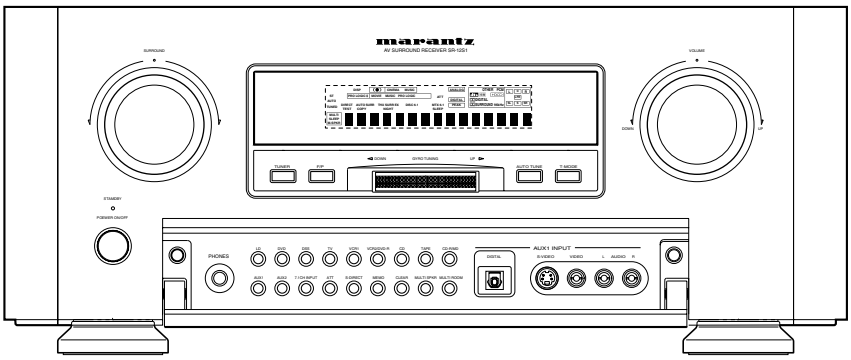
Service Manual

SR-12S1 /N1G/N1S

AV Surround Receiver



SRS Circle Surround II

dts 96/24 ES NEO:6

DOLBY DIGITAL • EX PRO LOGIC II

LUCASFILM THX ULTRA 2

THX SURROUND EX

HDCD

SR-12S1

TABLE OF CONTENTS

SECTION	PAGE
1. TECHNICAL SPECIFICATIONS AND SERVICE TOOL	1
2. TECHNICAL DESCRIPTION	4
3. WIRING DIAGRAM	7
4. BLOCK DIAGRAM	9
5. SCHEMATIC DIAGRAM	11
6. PARTS LOCATION	33
7. IC DATA	53
8. EXPLODED VIEW AND PARTS LIST	63
9. SERVICE PROGRAM	67
10. UPDATE FIRMWARE	69
11. POWER AMPLIFIER ADJUSTMENT	71
12. SYSTEM ERROR	73
13. TROUBLE SHOOTING	75
14. ELECTRICAL PARTS LIST	77

Please use this service manual with referring to the user guide (D.F.U.) without fail.
修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

marantz®

SR-12S1

Part no. 05AJ855010
First Issue 2003.08
ecm

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

USA

MARANTZ AMERICA, INC
1100 MAPLEWOOD DRIVE
ITASCA, IL. 60143
USA
PHONE : 630 - 741 - 0300
FAX : 630 - 741 - 0301

EUROPE / TRADING

MARANTZ EUROPE B.V.
P. O. BOX 8744, BUILDING SILVERPOINT
BEEMDSTRAAT 11, 5653 MA EINDHOVEN
THE NETHERLANDS
PHONE : +31 - 40 - 2507844
FAX : +31 - 40 - 2507860

CANADA

LENBROOK INDUSTRIES LIMITED
633 GRANITE COURT,
PICKERING, ONTARIO L1W 3K1
CANADA
PHONE : 905 - 831 - 6333
FAX : 905 - 831 - 6936

PROFESSIONAL **AMERICAS**

SUPERSCOPE TECHNOLOGIES, INC.
MARANTZ PROFESSIONAL PRODUCTS
2640 WHITE OAK CIRCLE, SUITE A
AURORA, ILLINOIS 60504 USA
PHONE : 630 - 820 - 4800
FAX : 630 - 820 - 8103

PROFESSIONAL **AUSTRALIA**

TECHNICAL AUDIO GROUP PTY, LTD
43-53 Bridge Rd.,
STANMORE NSW 2048
AUSTRALIA
PHONE : +61 - (0)2 - 9519 - 0900
FAX : +61 - (0)2 - 9519 - 0600

PROFESSIONAL **HONG KONG**

Jolly ProAudio Broadcast Engineering Ltd.
UNIT 2, 10F, WAH HUNG CENTRE,
41 HUNG TO ROAD, KWUN TONG, KLN.,
HONG KONG
PHONE : 852 - 21913660
FAX : 852 - 21913990

AUSTRALIA

QualiFi Pty Ltd,
24 LIONEL ROAD,
MT. WAVERLEY VIC 3149
AUSTRALIA
PHONE : +61 - (0)3 - 9543 - 1522
FAX : +61 - (0)3 - 9543 - 3677

THAILAND

MRZ STANDARD CO., LTD
746 - 754 MAHACHAI ROAD.,
WANGBURAPAPIROM, PHRANAKORN,
BANGKOK, 10200 THAILAND
PHONE : +66 - 2 - 222 9181
FAX : +66 - 2 - 224 6795

SINGAPORE

WO KEE HONG DISTRIBUTION PTE LTD
130 JOO SENG ROAD
#03-02 OLIVINE BUILDING
SINGAPORE 368357
PHONE : +65 6858 5535 / +65 6381 8621
FAX : +65 6858 6078

NEW ZEALAND

WILDASH AUDIO SYSTEMS NZ
14 MALVERN ROAD MT ALBERT
AUCKLAND NEW ZEALAND
PHONE : +64 - 9 - 8451958
FAX : +64 - 9 - 8463554

TAIWAN

PAI- YUING CO., LTD.
6 TH FL NO, 148 SUNG KIANG ROAD,
TAIPEI, 10429, TAIWAN R.O.C.
PHONE : +886 - 2 - 25221304
FAX : +886 - 2 - 25630415

MALAYSIA

WO KEE HONG ELECTRONICS SDN. BHD.
2ND FLOOR BANGUNAN INFINITE CENTRE
LOT 1, JALAN 13/6, 46200 PETALING JAYA
SELANGOR DARUL EHSAN, MALAYSIA
PHONE : +60 - 3 - 7954 8088
FAX : +60 - 3 - 7954 7088

JAPAN *Technical*

MARANTZ JAPAN, INC.
35- 1, 7- CHOME, SAGAMIONO
SAGAMIHARA - SHI, KANAGAWA
JAPAN 228-8505
PHONE : +81 42 748 1013
FAX : +81 42 741 9190

日本マランツ株式会社

本　社　〒228-8505
神奈川県相模原市相模大野7-35-1

KOREA

MK ENTERPRISES LTD.
ROOM 604/605, ELECTRO-OFFICETEL, 16-58,
3GA, HANGANG-RO, YONGSAN-KU, SEOUL
KOREA
PHONE : +822 - 3232 - 155
FAX : +822 - 3232 - 154

SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

1. TECHNICAL SPECIFICATIONS AND SERVICE TOOL

TECHNICAL SPECIFICATIONS

FM TUNER SECTION

Frequency Range ..... 87.5 - 108.0 MHz
Usable Sensitivity ..... IHF 1.8 µV/16.4 dBf
Signal to Noise Ratio ..... Mono/Stereo 76/72 dB
Distortion..... Mono/Stereo 0.2/0.3 %
Stereo Separation..... 1 kHz 45 dB
Alternate Channel Selectivity..... ± 300 kHz 60 dB
Image Rejection..... 98 MHz 70 dB
Tuner Output Level .....1 kHz, ± 75 kHz Dev 800 mV

AM TUNER SECTION

Frequency Range ..... 152 - 282 kHz (LW)
.....531 - 1602 kHz (MW)
Signal to Noise Ratio .....50 dB
Usable Sensitivity.....Loop 400µV
Distortion.....1 kHz, 30 % Mod. 0.5 %
Selectivity..... ± 20 kHz 70 dB

AUDIO SECTION

Power Output (20 Hz - 20 kHz/THD=0.08%)
Front L&R..... 8 ohms 105 W / Ch
Center ..... 8 ohms 105 W / Ch
Surround L&R ..... 8 ohms 105 W / Ch
Surround Back L&R ..... 8 ohms 105 W / Ch

Front L&R..... 6 ohms 160 W / Ch
Center ..... 6 ohms 160 W / Ch
Surround L&R ..... 6 ohms 160 W / Ch
Surround Back L&R ..... 6 ohms 160 W / Ch

Input Sensitivity/Impedance.....168 mV/ 47 Kohms
Signal to Noise Ratio
(Analog Input / Source Direct) .....105 dB
Frequency Response
(Analog Input / Source Direct)... 8 Hz - 100 kHz (± 3 dB)
(Digital Input / 96 kHz PCM) ..... 8 Hz - 45 kHz (± 3 dB)

VIDEO

Television Format .....NTSC/PAL
Input Level/Impedance.....1 Vp-p/75 ohms
Output Level/Impedance.....1 Vp-p/75 ohms
Video Frequency Response ..... 5 Hz to 10 MHz (- 3 dB)
Component Video
Frequency Response..... 5 Hz to 50 MHz (- 3 dB)
S/N.....60 dB

GENERAL

Power Requirement .....AC 230 V 50 Hz
Power Consumption.....530 W
Weight ..... 26.5 kg

ACCESSORIES

Remote Control Unit RC3200 1
AA-size batteries..... 3
FM Antenna 1
AM Loop Antenna 1
RS232C Cable..... 1

SERVICE TOOL

Updated of the CPU and DSP DISC ***SR12S1CDR**
(The disc is regarding when exchanged in QU01.)

The relation between the selected surround mode and the input signal

The surround mode is selected with the surround mode buttons on SR-12S1 or the remote control unit. However, the sound you hear is subject to the relationship between the selected surround mode and input signal. That relationship is as follows;

Surround Mode	Input Signal	Output Channel					Front information display			
		L/R	C	SL SR	SBL SBR	SubW	Signal format indicators	Channel status	Dot matrix display	Segments
AUTO	Dolby D Surr. EX	O	O	O	O	O	□□ DIGITAL	L,C,R,SL,SR,S,LFE	THX SUR EX	AUTO SURR
	DTS-ES	O	O	O	O	O	dts , ES	L,C,R,SL,SR,S,LFE	DTS ES	AUTO SURR
	Dolby D (5.1ch)	O	O	O	-	O	□□ DIGITAL	L,C,R,SL,SR,LFE	DOLBY D	AUTO SURR
	DTS(5.1ch)	O	O	O	-	O	dts	L,C,R,SL,SR,LFE	DTS Cinema	AUTO SURR
	Dolby D(2ch)	O	-	-	-	O	□□ DIGITAL	L,R	DOLBY D	AUTO SURR
	Dolby D(2ch Surr)	O	O	O	-	O	□□DIGITAL , □□SURROUND	L,R,S	DOLBY PL2	AUTO SURR
	PCM(Audio)	O	-	-	-	O	PCM	L,R	STEREO	AUTO SURR
	PCM 96kHz	O	-	-	-	O	PCM, 96kHz	L,R	STEREO	AUTO SURR
	HDCD	O	-	-	-	O	PCM, HDCD	L,R	STEREO	AUTO SURR
	Analog	O	-	-	-	O	ANALOG	-	STEREO	AUTO SURR
S-DIRECT	Dolby D Surr. EX	O	O	O	O	O	□□ DIGITAL	L,C,R,SL,SR,S,LFE	S-DIRECT	AUTO SURR
	DTS-ES	O	O	O	O	O	dts , ES	L,C,R,SL,SR,S,LFE	S-DIRECT	AUTO SURR
	Dolby D (5.1ch)	O	O	O	-	O	□□ DIGITAL	L,C,R,SL,SR,LFE	S-DIRECT	AUTO SURR
	DTS(5.1ch)	O	O	O	-	O	dts	L,C,R,SL,SR,LFE	S-DIRECT	AUTO SURR
	Dolby D(2ch)	O	-	-	-	-	□□ DIGITAL	L,R	S-DIRECT	AUTO SURR
	Dolby D(2ch Surr)	O	O	O	-	-	□□DIGITAL , □□SURROUND	L,R,S	S-DIRECT	AUTO SURR
	PCM(Audio)	O	-	-	-	-	PCM	L,R	S-DIRECT	AUTO SURR
	PCM 96kHz	O	-	-	-	-	PCM, 96kHz	L,R	S-DIRECT	AUTO SURR
	HDCD	O	-	-	-	-	PCM, HDCD	L,R	S-DIRECT	AUTO SURR
	Analog	O	-	-	-	-	ANALOG	-	S-DIRECT	AUTO SURR
DTS cinema/music	Dolby D Surr. EX	-	-	-	-	-	(□□ DIGITAL)	-	(NO DTS INPUT)	
	DTS-ES	O	O	O	-	O	dts , ES	L,C,R,SL,SR,S,LFE	DTS CINEMA or DTS MUSIC	
	Dolby D (5.1ch)	-	-	-	-	-	(□□ DIGITAL)	-	(NO DTS INPUT)	
	DTS(5.1ch)	O	O	O	-	O	dts	L,C,R,SL,SR,LFE	DTS CINEMA or DTS MUSIC	
	Dolby D(2ch)	-	-	-	-	-	(□□DIGITAL , □□SURROUND)	-	(NO DTS INPUT)	
	Dolby D(2ch Surr)	-	-	-	-	-	(□□DIGITAL , □□SURROUND)	-	(NO DTS INPUT)	
	PCM(Audio)	-	-	-	-	-	(PCM)	-	(NO DTS INPUT)	
	PCM 96kHz	-	-	-	-	-	PCM, (96kHz)	-	(NO DTS INPUT)	
	HDCD	-	-	-	-	-	(PCM)	-	(NO DTS INPUT)	
	Analog	-	-	-	-	-	(ANALOG)	-	(NO DTS INPUT)	
DTS ES	Dolby D Surr. EX	-	-	-	-	-	(□□ DIGITAL)	-	(NO DTS INPUT)	
	DTS-ES	O	O	O	O	O	dts , ES	L,C,R,SL,SR,S,LFE	DTS ES	Disc6.1
	Dolby D (5.1ch)	-	-	-	-	-	(□□ DIGITAL)	-	(NO DTS INPUT)	
	DTS(5.1ch)	O	O	O	O	O	dts	L,C,R,SL,SR,LFE	DTS ES	Mtx 6.1
	Dolby D(2ch)	-	-	-	-	-	(□□DIGITAL , □□SURROUND)	-	(NO DTS INPUT)	
	Dolby D(2ch Surr)	-	-	-	-	-	(□□DIGITAL , □□SURROUND)	-	(NO DTS INPUT)	
	PCM(Audio)	-	-	-	-	-	(PCM)	-	(NO DTS INPUT)	
	PCM 96kHz	-	-	-	-	-	PCM, (96kHz)	-	(NO DTS INPUT)	
	HDCD	-	-	-	-	-	(PCM)	-	(NO DTS INPUT)	
	Analog	-	-	-	-	-	(ANALOG)	-	(NO DTS INPUT)	
Neo6	Dolby D Surr. EX	O	O	O	-	O	□□ DIGITAL	L,C,R,SL,SR,S,LFE	(NO DTS INPUT)	
	DTS-ES	O	O	O	O	O	dts ES	L,C,R,SL,SR,S,LFE	DTS ES	Disc6.1
	Dolby D (5.1ch)	O	O	O	-	O	□□ DIGITAL	L,C,R,SL,SR,S,LFE	(NO DTS INPUT)	
	DTS(5.1ch)	O	O	O	-	O	(dts)	L,C,R,SL,SR,LFE	DTS ES	Mtx 6.1
	Dolby D(2ch)	O	O	O	O	O	□□ DIGITAL	L,R	NEO 6	
	Dolby D(2ch Surr)	O	O	O	O	O	□□DIGITAL , □□SURROUND	-	NEO 6	
	PCM(Audio)	O	O	O	O	O	PCM	-	NEO 6	
	PCM 96kHz	-	-	-	-	-	PCM, (96kHz)	-	NEO 6	
	HDCD	O	O	O	O	O	PCM	-	NEO 6	
	Analog	O	O	O	O	O	ANALOG	-	NEO 6	
THX	Dolby D Surr. EX	O	O	O	-	O	□□ DIGITAL	L,C,R,SL,SR,S,LFE	THX 5.1	
	DTS-ES	O	O	O	-	O	dts , ES	L,C,R,SL,SR,S,LFE	THX 5.1	
	Dolby D (5.1ch)	O	O	O	-	O	□□ DIGITAL	L,C,R,SL,SR,LFE	THX 5.1	
	DTS(5.1ch)	O	O	O	-	O	dts	L,C,R,SL,SR,LFE	THX 5.1	
	Dolby D(2ch)	O	O	O	-	O	□□ DIGITAL	L,R, LFE	THX CINEMA	PLⅡ, MOVIE
	Dolby D(2ch Surr)	O	O	O	-	O	□□DIGITAL , □□SURROUND	L,R,S,LFE	THX CINEMA	PLⅡ, MOVIE
	PCM(Audio)	O	O	O	-	O	PCM	L,R	THX CINEMA	PLⅡ, MOVIE
	PCM 96kHz	-	-	-	-	-	PCM, (96kHz)	L,R	THX CINEMA	PLⅡ, MOVIE
	HDCD	O	O	O	-	O	PCM	L,R	THX CINEMA	PLⅡ, MOVIE
	Analog	O	O	O	-	O	ANALOG	-	THX CINEMA	PLII, MOVIE
THX EX	Dolby D Surr. EX	O	O	O	O	O	□□ DIGITAL	L,C,R,SL,SR,S,LFE	THX SUR EX	THX Surr EX
	DTS-ES	O	O	O	O	O	dts , ES	L,C,R,SL,SR,S,LFE	THX SUR EX	THX Surr EX
	Dolby D (5.1ch)	O	O	O	O	O	□□ DIGITAL	L,C,R,SL,SR,LFE	THX SUR EX	THX Surr EX
	DTS(5.1ch)	O	O	O	O	O	dts	L,C,R,SL,SR,LFE	THX SUR EX	THX Surr EX
	Dolby D(2ch)	O	O	O	-	O	□□ DIGITAL	L,R,LFE	THX CINEMA	THX Surr EX, PLⅡ, MOVIE
	Dolby D(2ch Surr)	O	O	O	-	O	□□DIGITAL , □□SURROUND	L,R,S,LFE	THX CINEMA	THX Surr EX, PLⅡ, MOVIE
	PCM(Audio)	O	O	O	-	O	PCM	L,R	THX CINEMA	THX Surr EX, PLⅡ, MOVIE
	PCM 96kHz	-	-	-	-	-	PCM, (96kHz)	L,R	THX CINEMA	THX Surr EX, PLⅡ, MOVIE
	HDCD	O	O	O	-	O	PCM	L,R	THX CINEMA	THX Surr EX, PLⅡ, MOVIE
	Analog	O	O	O	-	O	ANALOG	-	THX CINEMA	THX Surr EX, PLII, MOVIE
THX ULTRA2	Dolby D Surr. EX	O	O	O	O	O	□□ DIGITAL	L,C,R,SL,SR,S,LFE	THX SUR EX	THX Surr EX
	DTS-ES	O	O	O	O	O	dts , ES	L,C,R,SL,SR,S,LFE	TTHX SUR EX	THX Surr EX
	Dolby D (5.1ch)	O	O	O	O	O	□□ DIGITAL	L,C,R,SL,SR,LFE	THX ULTRA2	
	DTS(5.1ch)	O	O	O	O	O	dts	L,C,R,SL,SR,LFE	THX ULTRA2	
THX MUSIC	Dolby D Surr. EX	O	O	O	O	O	□□ DIGITAL	L,C,R,SL,SR,S,LFE	THX 5.1 MUSIC	
	DTS-ES	O	O	O	O	O	dts , ES	L,C,R,SL,SR,S,LFE	THX 5.1 MUSIC	
	Dolby D (5.1ch)	O	O	O	O	O	□□ DIGITAL	L,C,R,SL,SR,LFE	THX 5.1 MUSIC	
	DTS(5.1ch)	O	O	O	O	O	dts	L,C,R,SL,SR,LFE	THX 5.1 MUSIC	

Surround Mode	Input Signal	Output Channel					Front information display			
		L/R	C	SL SR	SBL SBR	SubW	Signal format indicators	Channel status	Dot matrix display	Segments
DOLBY (PL2-movie) (PL2-music) (PL2-PL)	Dolby D Surr. EX	O	O	O	O	O	DD DIGITAL	L,C,R,SL,SR,S,LFE	DOLBY D	
	DTS-ES	-	-	-	-	-	(dts , ES)	L,C,R,SL,SR,S,LFE	DOLBY D	
	Dolby D (5.1ch)	O	O	O	-	O	DD DIGITAL	L,C,R,SL,SR,LFE	DOLBY D	
	DTS(5.1ch)	-	-	-	-	-	(dts)	L,C,R,SL,SR,LFE	DOLBY D	
	Dolby D(2ch)	O	O	O	-	O	DD DIGITAL	L,R, LFE	DOLBY PL2	PLII, MOVIE or MUSIC or PL
	Dolby D(2ch Surr)	O	O	O	-	O	DDDIGITAL , DDSURROUND	L,R,S,LFE	DOLBY PL2	PLII, MOVIE or MUSIC or PL
	PCM(Audio)	O	O	O	-	O	PCM	L,R	DOLBY PL2	PLII, MOVIE or MUSIC or PL
	PCM 96kHz	-	-	-	-	-	PCM, (96kHz)	L,R	DOLBY D	PLII, MOVIE or MUSIC or PL
	HDCD	O	O	O	-	O	PCM	L,R	DOLBY PL2	PLII, MOVIE or MUSIC or PL
	Analog	O	O	O	-	O	ANALOG	-	DOLBY PL2	PLII, MOVIE or MUSIC or PL
CSII music CSII cinema CSII mono	Dolby D Surr. EX	O	O	O	-	O	(DD DIGITAL)	L,C,R,SL,SR,S,LFE	DOLBY D	
	DTS-ES	O	O	O	O	O	dts , ES	L,C,R,SL,SR,S,LFE	DTS-ES	
	Dolby D (5.1ch)	O	O	O	-	O	DD DIGITAL	L,C,R,SL,SR,LFE	DOLBY D	
	DTS(5.1ch)	O	O	O	-	O	dts	L,C,R,SL,SR,LFE	DTS cinema	
	Dolby D(2ch)	O	O	O	O	O	DD DIGITAL	L,R, LFE	CSII	(●) MUSIC or CINEMA
	Dolby D(2ch Surr)	O	O	O	O	O	DDDIGITAL , DDSURROUND	L,R,S,LFE	CSII	(●) MUSIC or CINEMA
	PCM(Audio)	O	O	O	O	O	PCM	L,R	CSII	(●) MUSIC or CINEMA
	PCM 96kHz	-	-	-	-	-	PCM, (96kHz)	L,R	CSII	(●) MUSIC or CINEMA
	HDCD	O	O	O	O	O	PCM	L,R	CSII	(●) MUSIC or CINEMA
	Analog	O	O	O	O	O	ANALOG	-	CSII	(●) MUSIC or CINEMA
STEREO	Dolby D Surr. EX	O	-	-	-	O	DD DIGITAL	L,C,R,SL,SR,S,LFE	STEREO	
	DTS-ES	O	-	-	-	O	dts , ES	L,C,R,SL,SR,S,LFE	STEREO	
	Dolby D (5.1ch)	O	-	-	-	O	DD DIGITAL	L,C,R,SL,SR,LFE	STEREO	
	DTS(5.1ch)	O	-	-	-	O	dts	L,C,R,SL,SR,LFE	STEREO	
	Dolby D(2ch)	O	-	-	-	O	DD DIGITAL	L,R, LFE	STEREO	
	Dolby D(2ch Surr)	O	-	-	-	O	DDDIGITAL , DDSURROUND	L,R,S,LFE	STEREO	
	PCM(Audio)	O	-	-	-	O	PCM	L,R	STEREO	
	PCM 96kHz	O	-	-	-	O	PCM, 96kHz	L,R	STEREO	
	HDCD	O	-	-	-	O	PCM, HDCD	L,R	STEREO	
	Analog	O	-	-	-	O	ANALOG	-	STEREO	
Virtual	Dolby D Surr. EX	O	-	-	-	O	DD DIGITAL	L,C,R,SL,SR,S,LFE	VIRTUAL	
	DTS-ES	O	-	-	-	O	dts , ES	L,C,R,SL,SR,S,LFE	VIRTUAL	
	Dolby D (5.1ch)	O	-	-	-	O	DD DIGITAL	L,C,R,SL,SR,LFE	VIRTUAL	
	DTS(5.1ch)	O	-	-	-	O	dts	L,C,R,SL,SR,LFE	VIRTUAL	
	Dolby D(2ch)	O	-	-	-	O	DD DIGITAL	L,R, LFE	VIRTUAL	
	Dolby D(2ch Surr)	O	-	-	-	O	DDDIGITAL , DDSURROUND	L,R,S,LFE	VIRTUAL	
	PCM(Audio)	O	-	-	-	O	PCM	L,R	VIRTUAL	
	PCM 96kHz	-	-	-	-	-	PCM, (96kHz)	L,R	VIRTUAL	
	HDCD	O	-	-	-	O	PCM	L,R	VIRTUAL	
	Analog	O	-	-	-	O	ANALOG	-	VIRTUAL	
Multi Ch. Stereo	Dolby D Surr. EX	O	O	O	O	O	DD DIGITAL	L,C,R,SL,SR,S,LFE	M-CH ST	
	DTS-ES	O	O	O	O	O	dts , ES	L,C,R,SL,SR,S,LFE	M-CH ST	
	Dolby D (5.1ch)	O	O	O	O	O	DD DIGITAL	L,C,R,SL,SR,LFE	M-CH ST	
	DTS(5.1ch)	O	O	O	O	O	dts	L,C,R,SL,SR,LFE	M-CH ST	
	Dolby D(2ch)	O	O	O	O	O	DD DIGITAL	L,R, LFE	M-CH ST	
	Dolby D(2ch Surr)	O	O	O	O	O	DDDIGITAL , DDSURROUND	L,R,S,LFE	M-CH ST	
	PCM(Audio)	O	O	O	O	O	PCM	L,R	M-CH ST	
	PCM 96kHz	-	-	-	-	-	PCM, (96kHz)	L,R	M-CH ST	
	HDCD	O	O	O	O	O	PCM	L,R	M-CH ST	
	Analog	O	O	O	O	O	ANALOG	-	M-CH ST	
MOVIE HALL MATRIX	Dolby D Surr. EX	O	O	O	-	O	DD DIGITAL	L,C,R,SL,SR,S,LFE	MOVIE, HALL, MATRIX	
	DTS-ES	O	O	O	-	O	dts , ES	L,C,R,SL,SR,S,LFE	MOVIE, HALL, MATRIX	
	Dolby D (5.1ch)	O	O	O	-	O	DD DIGITAL	L,C,R,SL,SR,LFE	MOVIE, HALL, MATRIX	
	DTS(5.1ch)	O	O	O	-	O	dts	L,C,R,SL,SR,LFE	MOVIE, HALL, MATRIX	
	Dolby D(2ch)	O	O	O	-	O	DD DIGITAL	L,R, LFE	MOVIE, HALL, MATRIX	
	Dolby D(2ch Surr)	O	O	O	-	O	DDDIGITAL , DDSURROUND	L,R,S,LFE	MOVIE, HALL, MATRIX	
	PCM(Audio)	O	O	O	-	O	PCM	L,R	MOVIE, HALL, MATRIX	
	PCM 96kHz	-	-	-	-	-	PCM, (96kHz)	L,R	MOVIE, HALL, MATRIX	
	HDCD	O	O	O	-	O	PCM	L,R	MOVIE, HALL, MATRIX	
	Analog	O	O	O	-	O	ANALOG	-	MOVIE, HALL, MATRIX	

Note: DOLBY-D(2ch Surr)signals have Dolby Surround flag.
SPKRS setup is full THX system (8ch Speakers).

L/R : Front speaker
SL/SR : Surround speaker
SBL/SBR : Surround back speaker
C : Center speaker
SubW : Sub woofer speaker

PL: The PRO LOGIC indicator lights
PLII: The PRO LOGIC II indicator lights
( ): The indicator blinks

2. TECHNICAL DESCRIPTION

THX® is an exclusive set of standards and technologies established by the world-renowned film production company, Lucasfilm Ltd. THX resulted from George Lucas' desire to reproduce the movie soundtrack as faithfully as possible both in the movie theater and in the home theater.
THX engineers developed patented technologies to accurately translate the sound from a movie theater environment into the home, correcting the tonal and spatial errors that occur.
When the THX mode of the SR-12S1 is on, three distinct THX technologies are automatically added:
Re-Equalization-restores the correct tonal balance for watching a movie in a home environment.
These sounds are otherwise mixed to be brighter for a large movie theater. Re-EQ compensates for this and prevents the soundtracks from being overly bright and harsh when played in a home theater.
Timbre Matching-filters the information going to the surround speakers so they more closely match the tonal characteristics of the sound coming from the front speakers.
This ensures seamless panning between the front and surround speakers.
Adaptive Decorrelation-slightly changes one surround channel's time and phase relationship with respect to the other surround channel.
This expands the listening position and creates with only two surround speakers the same spacious surround experience as in a movie theater with multiple surround speakers.
The Marantz SR-12S1 was required to pass a rigorous series of quality and performance tests, in addition to incorporating the technologies explained above, in order to be THX Ultra certified by Lucasfilm Ltd.
THX Ultra requirements cover every aspect of performance including pre-amplifier and power amplifier performance and operation, and hundreds of other parameters in both the digital and analog domain.
Movies which have been encoded in Dolby Digital, DTS, Dolby Pro Logic, stereo and Mono will all benefit from the THX mode when being viewed.
The THX mode should only be activated when watching movies which were originally produced for a movie theater environment.
THX need not be activated for music, movies made especially for TV, or shows such as sports programming, talk shows, etc.
This is because they were originally mixed for a small room environment.

"Lucasfilm®" and "THX®" are registered trademarks of Lucasfilm Ltd.

Lucasfilm and THX are trademarks or registered trademarks of Lucasfilm Ltd. ©Lucasfilm Ltd. & TM. Surround EX is a jointly developed technology of THX and Dolby Laboratories, Inc. and is a trademark of Dolby Laboratories, Inc. All rights reserved. Used under authorization.

The **THX Ultra2** specification provides uncompromised 7.1 channel playback of any multi-channel program, whether movie soundtracks or music over the widest possible seating area.
There are an additional two processing's for THX Ultra2 as bellow.

A.S.A. (Advanced Speaker Array)
"ASA is a proprietary THX technology which processes the sound fed to 2 surround and 2 surround back speakers to provide the optimal surround sound experience. When you set up your home theater system using all eight speaker outputs (Left, Center, Right, Surround Right, Surround Back Right, Surround Back Left, Surround Left and Subwoofer), placing the two Surround Back speakers close together facing the front of the room as shown in the diagram will provide the largest sweet spot. If for practical reasons you have to place the Surround Back speakers apart, you will need to go to the **THX Audio Set-up** screen and choose the setting that most closely corresponds to the speaker distance, which will re-optimize the surround sound-field. ASA is used in two new surround modes; THX Ultra2 Cinema and THX Music Mode.

B.G.C. (Boundary Gain Compensation)
"If your chosen listening room layout (for practical or aesthetic reasons) results in most of the listeners being close to the rear wall, the resulting bass level can be sufficiently reinforced by the boundary that the overall sound quality becomes 'boomy'. THX Ultra2 receivers contain the BGC (Boundary Gain Compensation) feature to provide an improved bass balance. BGC can be selected by choosing 'THX Ultra2 Subwoofer-Yes' from the 'Boundary Gain Compensation' section of the 'THX Audio setup menu'.

THX SURROUND EX

THX Surround EX - Dolby Digital Surround EX is a joint development of Dolby Laboratories and the THX division of Lucasfilm Ltd.

In a movie theater, film soundtracks that have been encoded with Dolby Digital Surround EX technology are able to reproduce an extra channel which has been added during the mixing of the program.
This channel, called Surround Back, places sounds behind the listener in addition to the currently available front left, front center, front right, surround right, surround left and subwoofer channels.
This additional channel provides the opportunity for more detailed imaging behind the listener and brings more depth, spacious ambience and sound localization than ever before.
Movies that were created using the Dolby Digital Surround EX technology when released into the home consumer market may exhibit a Dolby Digital Surround EX logo on the packaging.
A list of movies created using this technology can be found on the Dolby web site at
http ://www.dolby.com.

"SURROUND EX ™" is a trademark of Dolby Laboratories. Used under authorization.

DTS was introduced in 1994 to provide 5.1 channels of discrete digital audio into home theater systems.
DTS brings you premium quality discrete multi-channel digital sound to both movies and music.
DTS is a multi-channel sound system designed to create full range digital sound reproduction.
The no compromise DTS digital process sets the standard of quality for cinema sound by delivering an exact copy
of the studio master recordings to neighborhood and home theaters.
Now, every moviegoer can hear the sound exactly as the moviemaker intended.
DTS can be enjoyed in the home for either movies or music on of DVD's, LD's, and CD's.

"DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

The advantages of discrete multichannel systems over matrix are well known.
But even in homes equipped for discrete multichannel, there remains a need for high-quality matrix decoding. This is because of the large library of matrix surround motion pictures available on disc and on VHS tape; and analog television broadcasts.
The typical matrix decoder of today derives a center channel and a mono surround channel from two-channel matrix stereo material. It is better than a simple matrix in that it includes steering logic to improve separation, but because of its mono, band-limited surround it can be disappointing to users accustomed to discrete multichannel.

Neo 6 offers several important improvements as follow,

- Neo 6 provides up to six full-band channels of matrix decoding from stereo matrix material. Users with 6.1 and 5.1 systems will derive six and five separate channels, respectively, corresponding to the standard home-theater speaker layouts.

- Neo 6 technology allows various sound elements within a channel or channels to be steered separately, and in a way which follows naturally from the original presentation.
- Neo 6 offers a music mode to expand stereo nonmatrix recordings into the five- or six-channel layout, in a way which does not diminish the subtlety and integrity of the original stereo recording.

DTS-ES Extended Surround is a new multi-channel digital signal format developed by Digital Theater Systems Inc. While offering high compatibility with the conventional DTS Digital Surround format, DTS-ES Extended Surround greatly improves the 360-degree surround impression and space expression thanks to further expanded surround signals. This format has been used professionally in movie theaters since 1999.
In addition to the 5.1 surround channels (FL, FR, C, SL, SR and LFE), DTS-ES Extended Surround also offers the SB (Surround Back) channel for surround playback with a total of 6.1 channels. DTS-ES Extended Surround includes two signal formats with different surround signal recording methods, as DTS-ES Discrete 6.1 and DTS-ES Matrix 6.1.

"DTS", "DTS-ES Extended Surround" and "Neo:6" are trademarks of Digital Theater Systems, Inc.

The stereo CD is a 16-bit medium with sampling at 44.1 kHz. Professional audio has been 20- or 24-bit for some time, and there is increasing interest in higher sampling rates both for recording and for delivery into the home. Greater bit depths provide extended dynamic range. Higher sampling rates allow wider frequency response and the use of anti-alias and reconstruction filters with more favorable aural characteristics.

DTS 96/24 allows for 5.1channel sound tracks to be encoded at a rate of 96kHz/24bits on DVD-Video titles.
When DVD-video appeared, it became possible to deliver 24-bit, 96 kHz audio into the home, but only in two channels, and with serious limitations on picture. This capability has had little use.
DVD-audio allows 96/24 in six channels, but a new player is needed, and only analog outputs are provided, necessitating the use of the D/A converters and analog electronics provided in the player.

DTS 96/24 offers the following:
1. Sound quality transparent to the original 96/24 master.
2. Full backward compatibility with all existing decoders. (Existing decoders will output a 48 kHz signal)
3. No new player required: DTS 96/24 can be carried on DVD-video, or in the video zone of DVD-audio, accessible to all DVD players.
4. 96/24 5.1-channel sound with full-quality full-motion video, for music programs and motion picture soundtracks on DVD-video.

Dolby Digital identifies the use of Dolby Digital (AC-3) audio coding for such consumer formats as DVD and DTV. As with film sound, Dolby Digital can provide up to five full-range channels for left, center, and right screen channels, independent left and right surround channels, and a sixth (".1") channel for low-frequency effects.

Dolby Surround Pro Logic II is an improved matrix decoding technology that provides better spatiality and directionality on Dolby Surround program material; provides a convincing three-dimensional soundfield on conventional stereo music recordings; and is ideally suited to bring the surround experience to automotive sound. While conventional surround programming is fully compatible with Dolby Surround Pro Logic II decoders, soundtracks will be able to be encoded specifically to take full advantage of Pro Logic II playback, including separate left and right surround channels. (Such material is also compatible with conventional Pro Logic decoders.)

Dolby Digital EX creates six full-bandwidth output channels from 5.1-channel sources. This is done using a matrix decoder that derives three surround channels from the two in the original recording. For best results, Dolby Digital EX should be used with movies soundtracks recorded with Dolby Digital Surround EX.

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.

Circle Surround II (CS-II) is a powerful and versatile multi-channel technology. CS-II is designed to enable up to 6.1 multi-channel surround sound playback from mono, stereo, CS encoded sources and other matrix encoded sources. In all cases the decoder extends it into 6 channels of surround audio and a LFE/subwoofer signal. The CS-II decoder creates a listening environment that places the listener "inside" music performances and dramatically improves both hi-fi audio conventional surround-encoded video material. CS-II provides composite stereo rear channels to greatly improve separation and image positioning – adding a heightened sense of realism to both audio and A/V productions.
CS-II is packed with other useful feature like dialog clarity (SRS Dialog) for movies and cinema-like bass enrichment (TruBass). CS-II can enable the dialog to become clearer and more discernable in movies and it enables the bass frequencies contained in the original programming to more closely achieve low frequencies – overcoming the low frequency limitations of the speakers by full octave.

SRS Circle Surround II, SRS Dialog, SRS TruBass, SRS and ● symbol are trademarks of SRS Labs, Inc.
SRS Circle Surround II, SRS Dialog and SRS TruBass technology are incorporated under license from SRS Labs, Inc.

HDCD® (High Definition Compatible Digital ®) is a patented process for delivering on Compact Disc the full richness and details of the original microphone feed.
HDCD encoded CDs sound better because they are encoded with 20-bits of real musical information as compared to 16-bits for all other CDs. HDCD overcomes the limitation of the 16-bit CD format by using a sophisticated system to encode the additional four bits onto the CD while remaining completely compatible with the CD format.
When listening to HDCD recordings, you hear more dynamic range, a focused 3-D sound stage, and extremely natural vocal and musical timbre. With HDCD, you get the body, depth and emotion of the original performance not a flat, digital imitation.

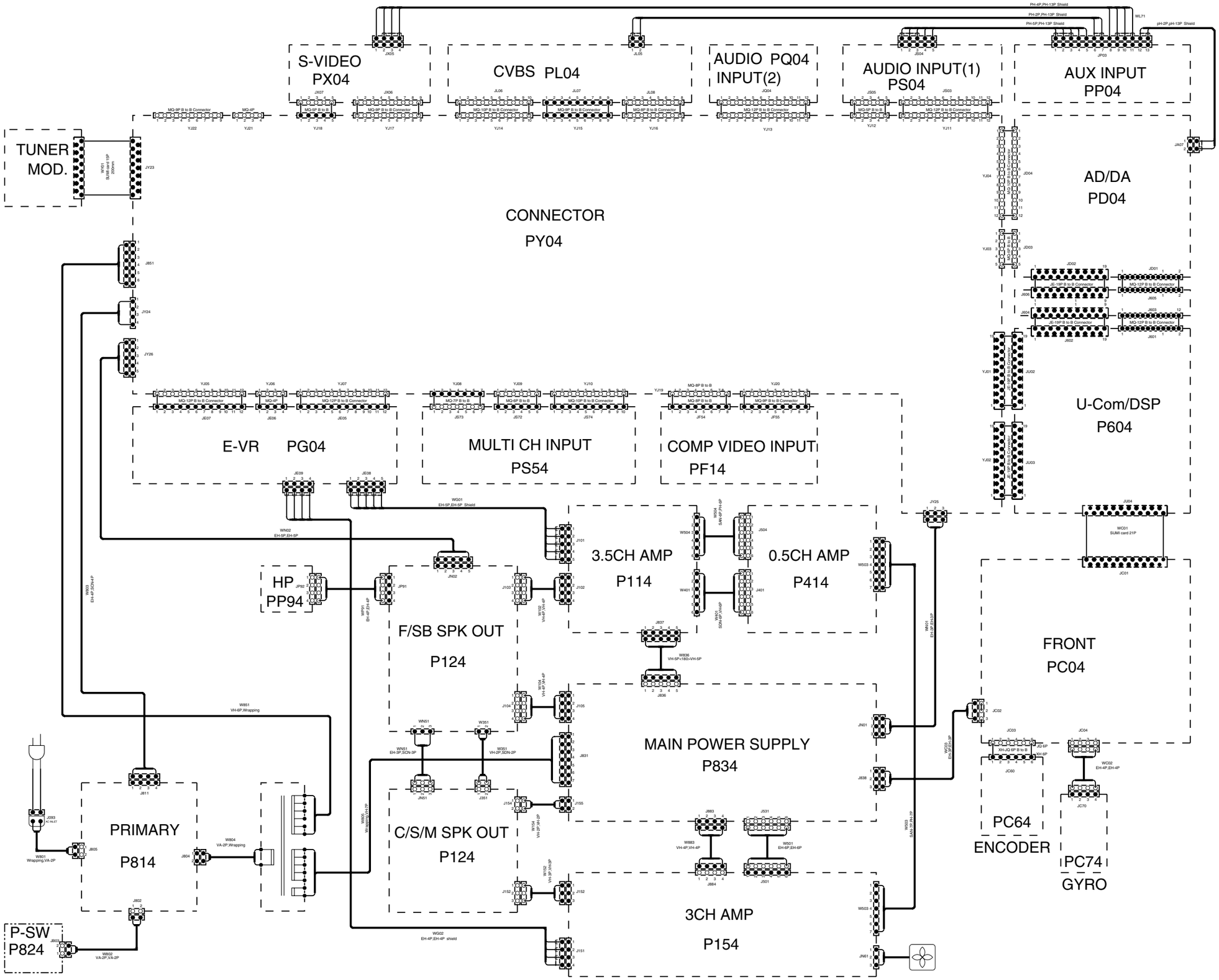
HDCD ®, HDCD®, High Definition Compatible Digital ® and Pacific Microsonics™ are either registered trademarks or trademarks of Pacific Microsonics, Inc. in the United States and/or other countries.
HDCD system manufactured under license from Pacific Microsonics, Inc. This product is covered by one or more of the following: In the USA: 5,479,168, 5,638,074, 5,640,161, 5,808,574, 5,838,274, 5,854,600, 5,864,311, 5,872,531, and in Australia: 669114. Other patents pending.

Remark : Bass signal output from Sub Woofer terminal.

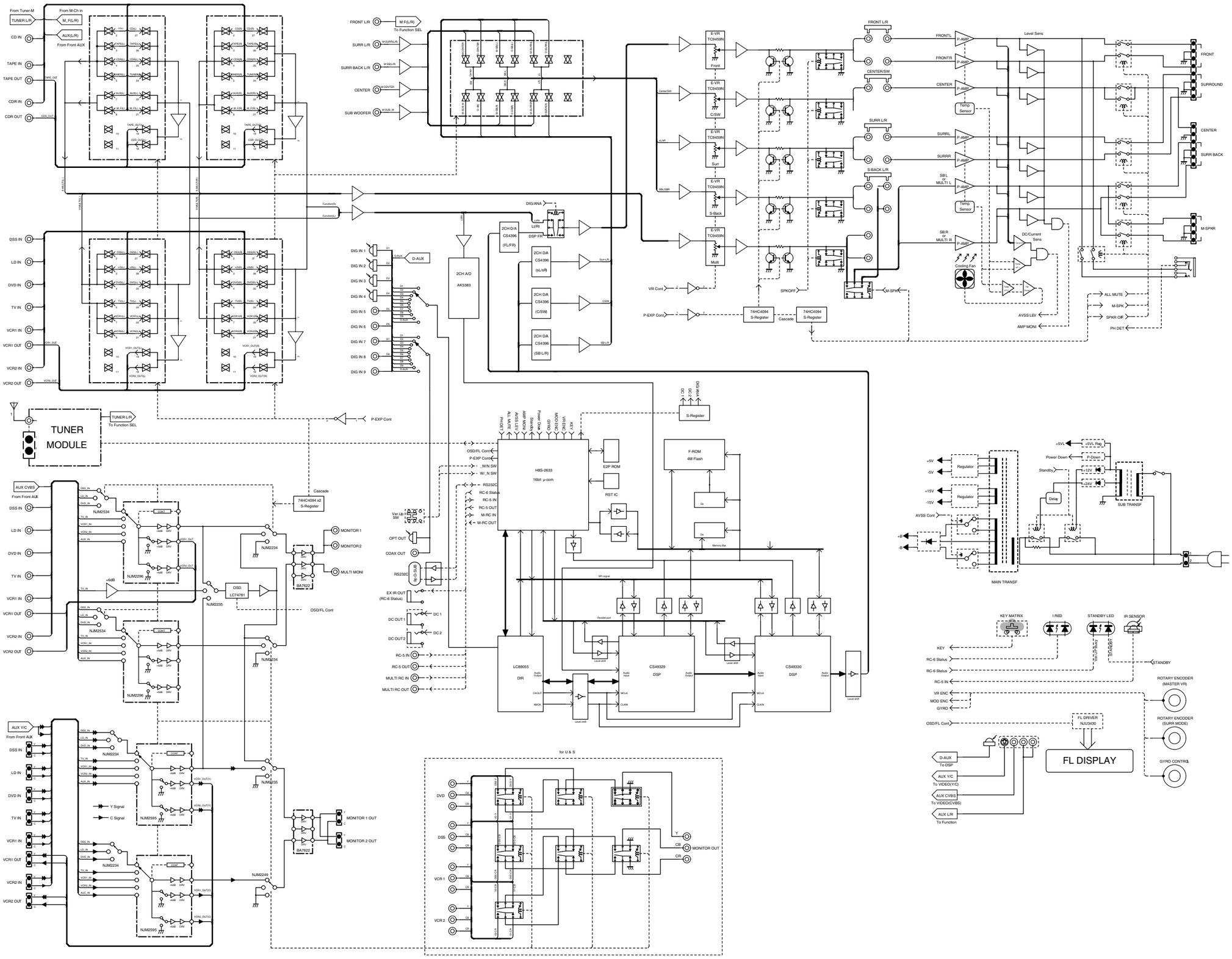
Sub woofer output is not active while all surround modes. Please refer to the following table.

SPK setup					ZR38601	SubWoofer Output by Surround mode					
Sub Woofer	Front	Center	Surr. L/R	Surr.B (L/R)	Bass CFG #	THX Surr EX, DTS ES	THX5.1, Dolby-D, DTS	PL2, CS, Neo6	Stereo	AUTO (PCM,Ana) AUTO(AC-3,DTS)	(AC-3:2ch,karaoke)
ON	Large	Large	Large	Large	1	LFE	LFE	none	L+R	LFE	L+R
				Small	14	LFE+Sb	LFE				
			Small	Large	3	LFE+SL+SR	LFE+SL+SR	none	L+R	LFE+SL+SR	L+R
				Small	16	LFE+SL+SR+Sb	LFE+SL+SR				
			None	(prohibit)	1	LFE	LFE	none	L+R	LFE	L+R
		Small	Large	Large	5	LFE+C	LFE+C	C	L+R	LFE+C	L+R
				Small	18	LFE+C+Sb	LFE+C				
			Small	Large	8	LFE+C+SL+SR	LFE+C+SL+SR	C	L+R	LFE+C+SL+SR	L+R
				Small	21	LFE+C+SL+SR+Sb	LFE+C+SL+SR				
			None	(prohibit)	5	LFE+C	LFE+C	C	L+R	LFE+C	L+R
		None	Large	Large	1	LFE	LFE	none	L+R	LFE	L+R
				Small	14	LFE+Sb	LFE				
			Small	Large	3	LFE+SL+SR	LFE+SL+SR	none	L+R	LFE+SL+SR	L+R
				Small	16	LFE+SL+SR+Sb	LFE+SL+SR				
			None	(prohibit)	1	LFE	LFE	none	L+R	LFE	L+R
	Small	Large	Large	Large	12	LFE+L+R	LFE+L+R	L+R	L+R	LFE+L+R	L+R
				Small	25	LFE+L+R+Sb	LFE+L+R				
			Small	Large	11	LFE+L+R+SL+SR	LFE+L+R+SL+SR	L+R	L+R	LFE+L+R+SL+SR	L+R
				Small	24	LFE+L+R+SL+SR+Sb	LFE+L+R+SL+SR				
			None	(prohibit)	12	LFE+L+R	LFE+L+R	L+R	L+R	LFE+L+R	L+R
		Small	Large	Large	10	LFE+L+R+C	LFE+L+R+C	L+R+C	L+R	LFE+L+R+C	L+R
				Small	23	LFE+L+R+C+Sb					
			Small	Large	0	LFE+L+R+C+SL+SR	LFE+L+R+C+SL+SR	L+R+C	L+R	LFE+L+R+C+SL+SR	L+R
				Small	13	LFE+L+R+C+SL+SR+Sb					
			None	(prohibit)	10	LFE+L+R+C	LFE+L+R+C	L+R+C	L+R	LFE+L+R+C	L+R
		None	Large	Large	12	LFE+L+R	LFE+L+R	L+R	L+R	LFE+L+R	L+R
				Small	25	LFE+L+R+Sb					
			Small	Large	11	LFE+SL+SR	LFE+SL+SR	L+R	L+R	LFE+SL+SR	L+R
				Small	24	LFE+SL+SR+Sb					
			None	(prohibit)	12	LFE+L+R	LFE+L+R	L+R	L+R	LFE+L+R	L+R
OFF						No output to subW					

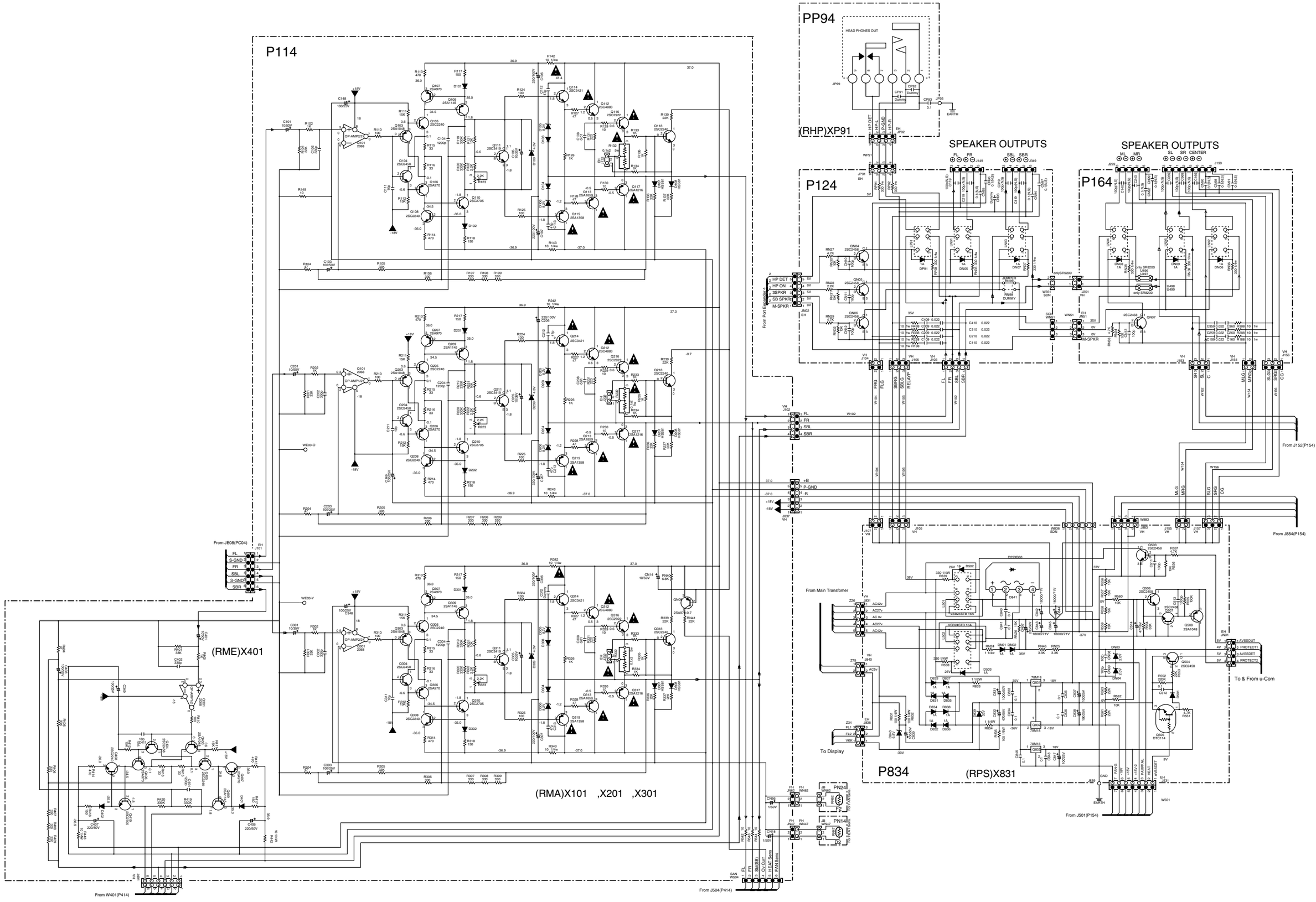
3. WIRING DIAGRAM



4. BLOCK DIAGRAM



5. SCHEMATIC DIAGRAM



P154

(RMB)X5XX

From J503(P414)

From J531(P834)

P414

(RME)X401

From W504(P114)

From J401(P114)

From J503(P154)

(RMC)XN01

(RMD)XN61

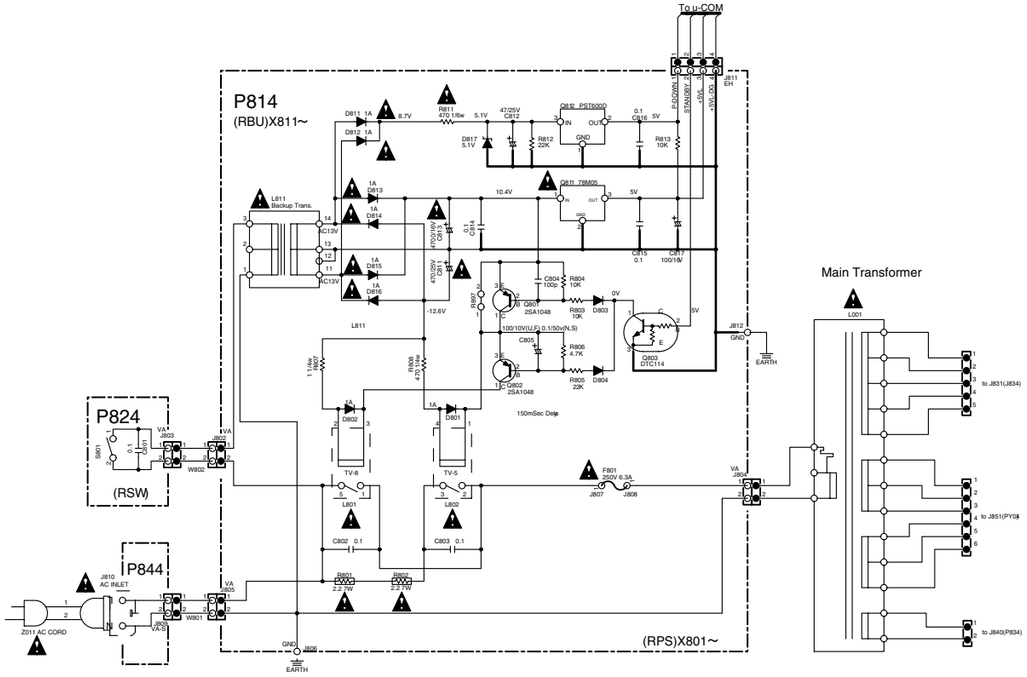
(RMA)X151 ,X251 ,X351

From J883(P834)

From J153(P164)

From JE09(PC04)

Cooling FAN



COMPONENT CONTROL

	VC	VD
DVD	L	L
VCR1	H	H
VCR2	H	L
DSS	L	H

PG04
RVR(XEXX)
(XGXX)
(XMXX)

TO J151(P154) 3CH AMP

TO J101(P114) 3.5CH AMP

FR

FL

SW

CEN

SR

SL

SBR

SBL

MR

ML

PRE

SPK

PRE OUT FR MAIN IN

PRE OUT FL MAIN IN

PRE OUT CEN MAIN IN

PRE OUT SW

PRE OUT SR MAIN IN

PRE OUT SL MAIN IN

PRE OUT SBR MAIN IN

PRE OUT SBL MAIN IN

PRE OUT R MULTI ROOM

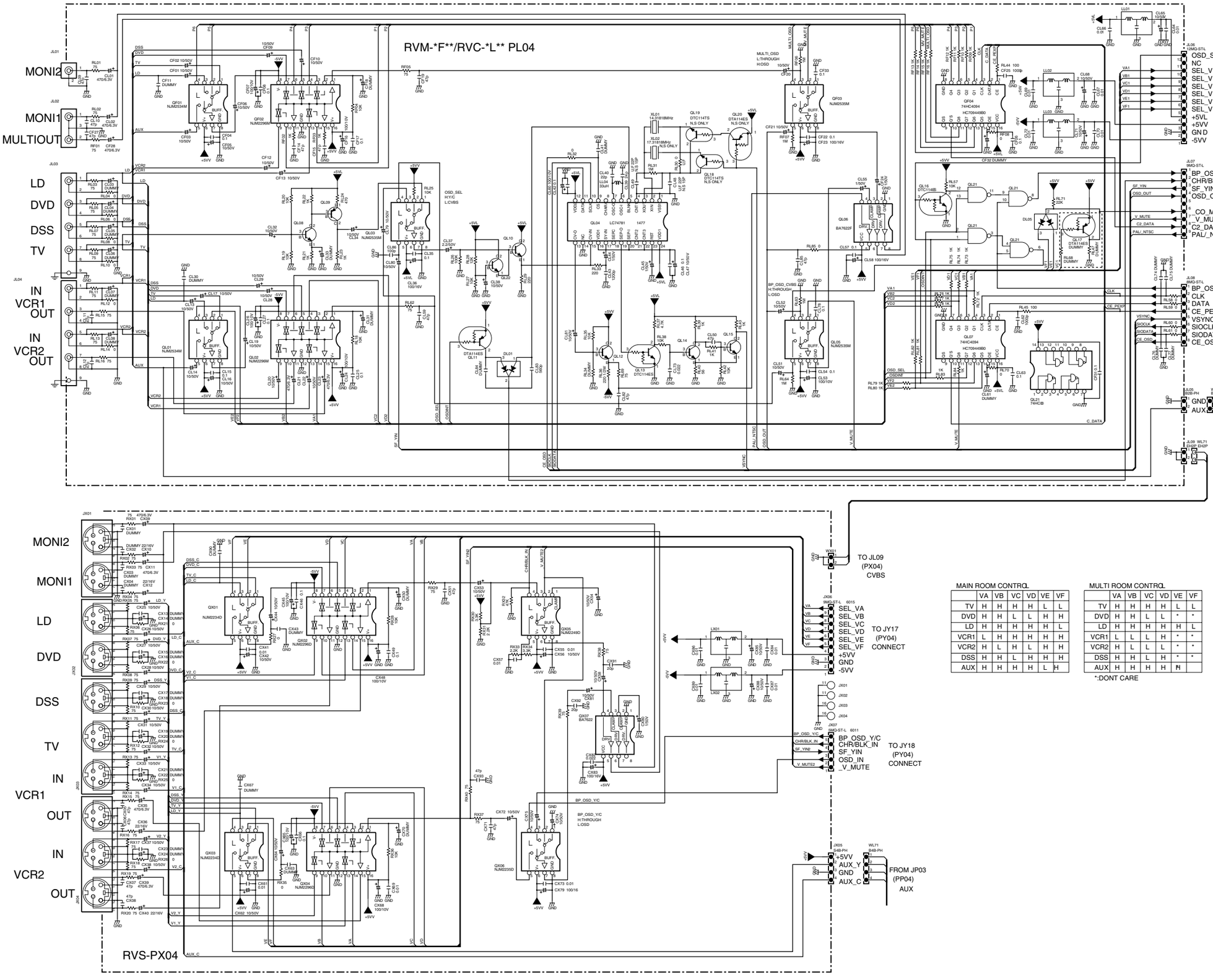
PRE OUT L MULTI ROOM

PG04

TO JY07(PY04) CONNECT

TO JY06(PY04) CONNECT

TO JY05(PY04) CONNECT



MAIN ROOM CONTROL

	VA	VB	VC	VD	VE	VF
TV	H	H	H	H	L	L
DVD	H	H	L	L	H	H
LD	H	H	H	H	H	L
VCR1	L	H	H	H	H	H
VCR2	H	L	H	L	H	H
DSS	H	H	L	H	H	H
AUX	H	H	H	H	L	H

MULTI ROOM CONTROL

	VA	VB	VC	VD	VE	VF
TV	H	H	H	H	L	L
DVD	H	H	L	L	*	*
LD	H	H	H	H	H	L
VCR1	L	L	L	H	*	*
VCR2	H	L	L	L	*	*
DSS	H	H	L	H	*	*
AUX	H	H	H	H	H	

*:DONT CARE

RRJ(XSXX) PS04
AUDIO FUNCTION

TO JY11(PY04) CONNECT

TO JP03(PP04) AUX

TO JY12(PY04) CONNECT

RRM(XSXX XQXX) PS54
MULTI CH IN

TO JY09(PY04) CONNECT

TO JY08(PY04) CONNECT

TO JY10(PY04) CONNECT

MULTI CH INPUT

RRJ(XQXX) PQ04
VISUAL FUNCTION

TO JY13(PY04) CONNECT

RDP(X6XX)
CONNECTION PCB P654

TO J601(P604)

TO JD01(PD04)

TO J602(P604)

TO JD02(PD04)

PY04
RCN-*Y**/RVR-*M,W**/RTU-*T**
RTR-*9**/RPS-*8**

μ-Com/DSP PCB

AD/DA PCB

Pre out/Main in PCB

Multi Ch Input PCB

Audio input(1) PCB

Audio input(2) PCB

CVBS input PCB

S-Video input PCB

Comp-Video input PCB

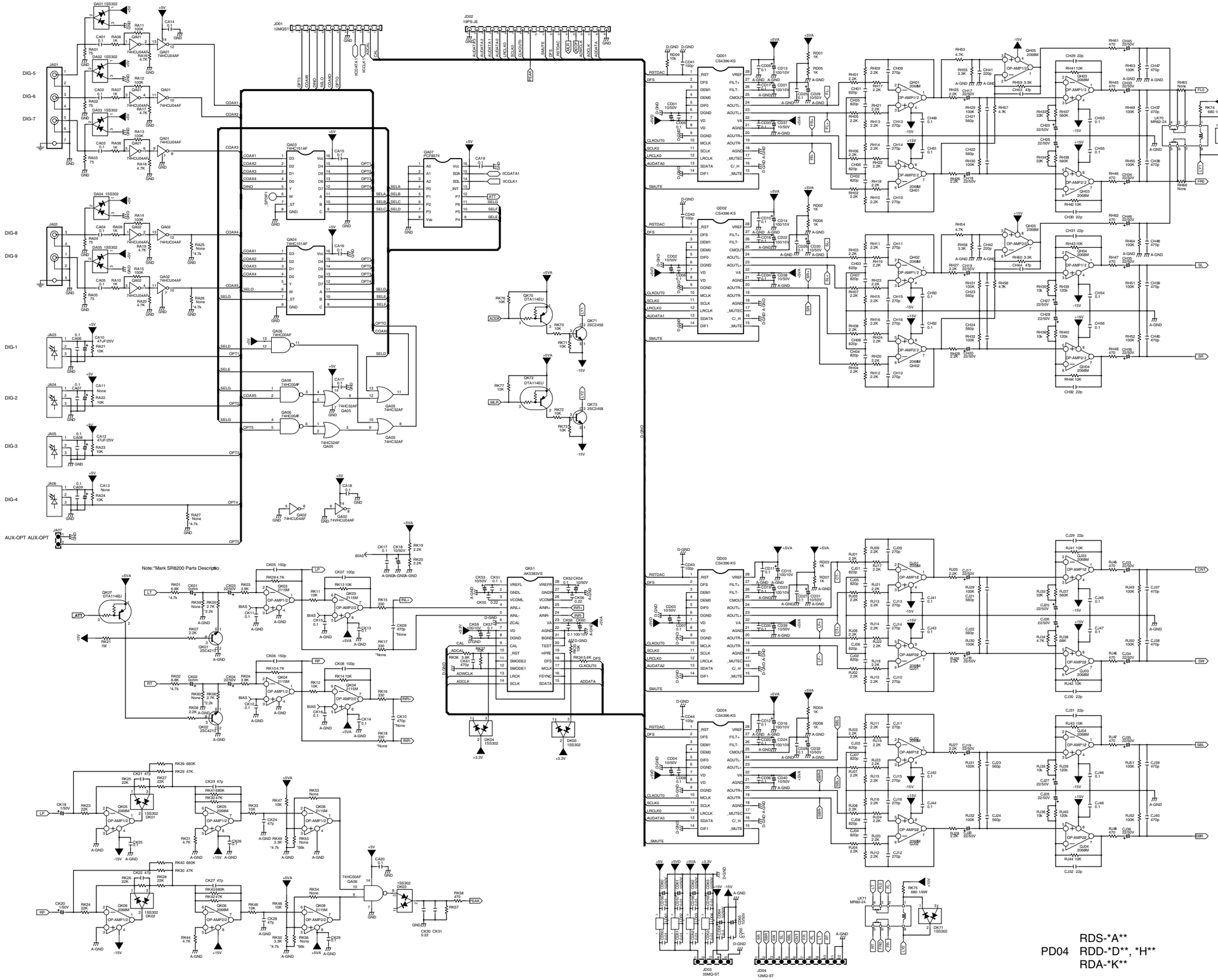
D Terminal Video PCB

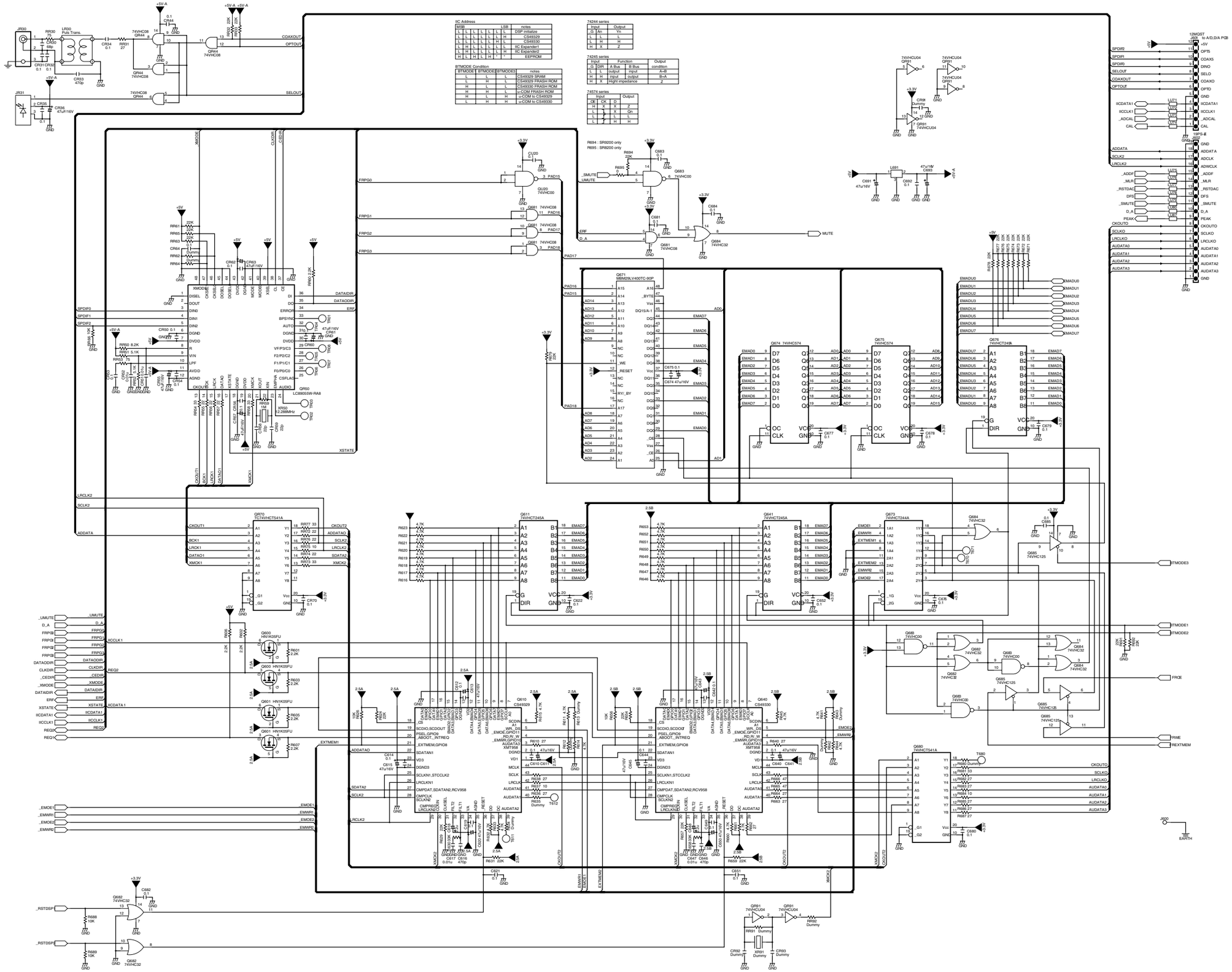
TUNER MODULE QT01

For J811 P804

For JN02 P124

From MAIN TRANSF


JD01
12MQST
JD02
19PS-JE
DIG-5
DIG-6
DIG-7
DIG-8
DIG-9
DIG-1
DIG-2
DIG-3
DIG-4
AUX-OPT AUX-OPT
COAX1
COAX2
COAX3
COAX4
COAX5
SELO
SELA
SELB
SELC
SELD
OPT1
OPT2
OPT3
OPT4
OPT5
OPT6
OPTO
COAXO
SELG
SELE
IICDATA1
IICCLK1
ATT
LP
RP
LT
RT
INL+
INR+
INR-
INL-
PEAK
Note:*Mark SR8200 Parts Description
QD01 CS4396-KS
QD02 CS4396-KS
QD03 CS4396-KS
QD04 CS4396-KS
QK51 AK5383VS
QK07 PCF8574
QK70 DTA114EU
QK71 2SC2458
QK72 DTA114EU
QK73 2SC2458
QK27 DTA114EU
QK01 2SC4213
QK02 2SC4213
LK70 MR82-24
LK71 MR82-24
LK72 MR82-24
RK74 680 1/6W
RK75 680 1/6W
JD03 05MQ-ST
JD04 12MQ-ST
PD04
RDS-*A**
RDD-*D**, *H**
RDA-*K**


I²C Address
MSB LSB notes
L L L L L L L DSP initialize
L L L L L L H CS49329
L L L L L H L CS49330
L H L L L L L I²C Expander1
L H L L L L H I²C Expander2
H L H L H L L EEPROM
BTMODE Condition
BTMODE[BTMODE[BTMODE[notes
L L L CS49329 SRAM
L H L CS49329 FRASH ROM
H L L CS49330 FRASH ROM
H H L u-COM FRASH ROM
H L H u-COM to CS49329
L H H u-COM to CS49330
74244 series
Input Output
G | An Yn
L L L
L H H
H X Z
74245 series
Input Function Ouput
G | DIR A Bus | B Bus condition
L L output input A=B
H H input output B=A
H X Hight impedance Z
74574 series
Input Output
OE | CK D
H X X Z
L ↑ L L
L ↑ H H
L ↓ X Qn
JR30
JR31
LR30 Puls Trans.
RR30 CR30 68p
CR31 CR32 0.1 0.1
CR33 470p
CR34 0.1
RR31 27
CR35 47uF/16V
CR36 47uF/16V
74VHC08 QR44
QR44 74VHC08
RR91 20K
COAXOUT
OPTOUT
SELOUT
+5V-A
+3.3V
+5V
GND
XMODE
CKAUDI
CEDIR
XMODE
DISEL
DOUT
DIN0
DIN1
DIN2
DGND
DVDD
R
VIN
LPF
AVDD
AGND
CKOUT
DI
DO
ERROR
BPSYNC
AUTO
DGND
DVDD
VF:P3/C3
F2:P2/C2
F1:P1/C1
F0:P0/C0
C/SFLAG
AUDIO
QR60 LC89055W-RA8
XR50 27.268MHz
DATAIDIR
DATAODIR
ERF
XSTATE
RR61 22K
RR65 22K
RR63 22K
RR64 Dummy
RR62 Dummy
RR64 22K
CR62 0.1
CR63 47uF/16V
RR60 2.2K
RR50 8.2K
RR51 5.1K
RR53 75
CR50 0.1
CR51 0.1
CR52 0.1
RR52 10K
CR53 0.1
CR54 0.1
CR55 47uF/16V
CR56 0.1
CR57 CR58 0.1
RR54 RR55 RR56 RR57 RR58 RR59 22
CR59 0.1
CR60 0.1
CR61 47uF/16V
TR61 TR62 TR63 TR64 TR65
CR65 0.1
CR66 0.1
CR67 0.1
CR68 0.1
CR69 0.1
CR70 0.1
CR71 0.1
CR72 0.1
CR73 0.1
CR74 0.1
CR75 0.1
CR76 0.1
CR77 0.1
CR78 0.1
CR79 0.1
CR80 0.1
CR81 0.1
CR82 0.1
CR83 0.1
CR84 0.1

RU09	1.2k
RU10	1k
RU11	4.7k
RU12	1.2k

IR out

Multi-Remote

RC-5 IN/OUT

IIC Address							
MSB						LSB	notes
L	L	L	L	L	L	L	DSP initialize
L	L	L	L	L	L	H	CS49329
L	L	L	L	L	H	L	CS49330
L	H	L	L	L	L	L	IIC Expander
L	H	L	L	L	L	H	IIC Expander
H	L	H	L	H	*	*	EEPROM

PC04

FRONT DISPLAY

VC01 HQ31601410 16-BT-92GNK

TO J838(P834) SUPPLY

WC03

TO JU04(P604) µ-COM/DSP

WC01

WC02

PC74 GYRO

PC64

SURR. ENCODER

WL71

TO JA07(PD04) DAC

TO JX05(PX04) S-VIDEO

TO JL05(PL04) CVBS

TO JS04(PS04) AUDIO FUNC

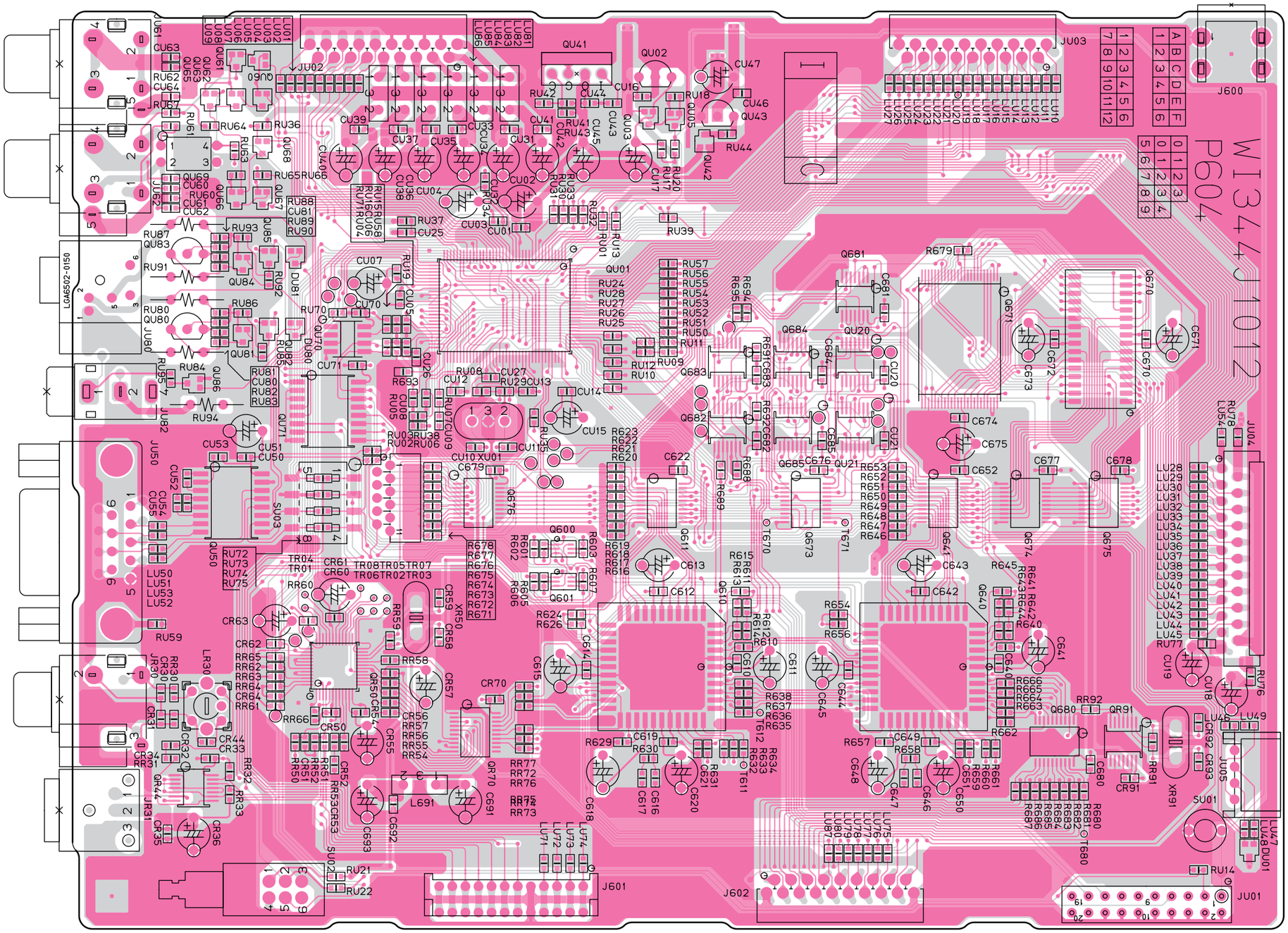
CVBS

L

R

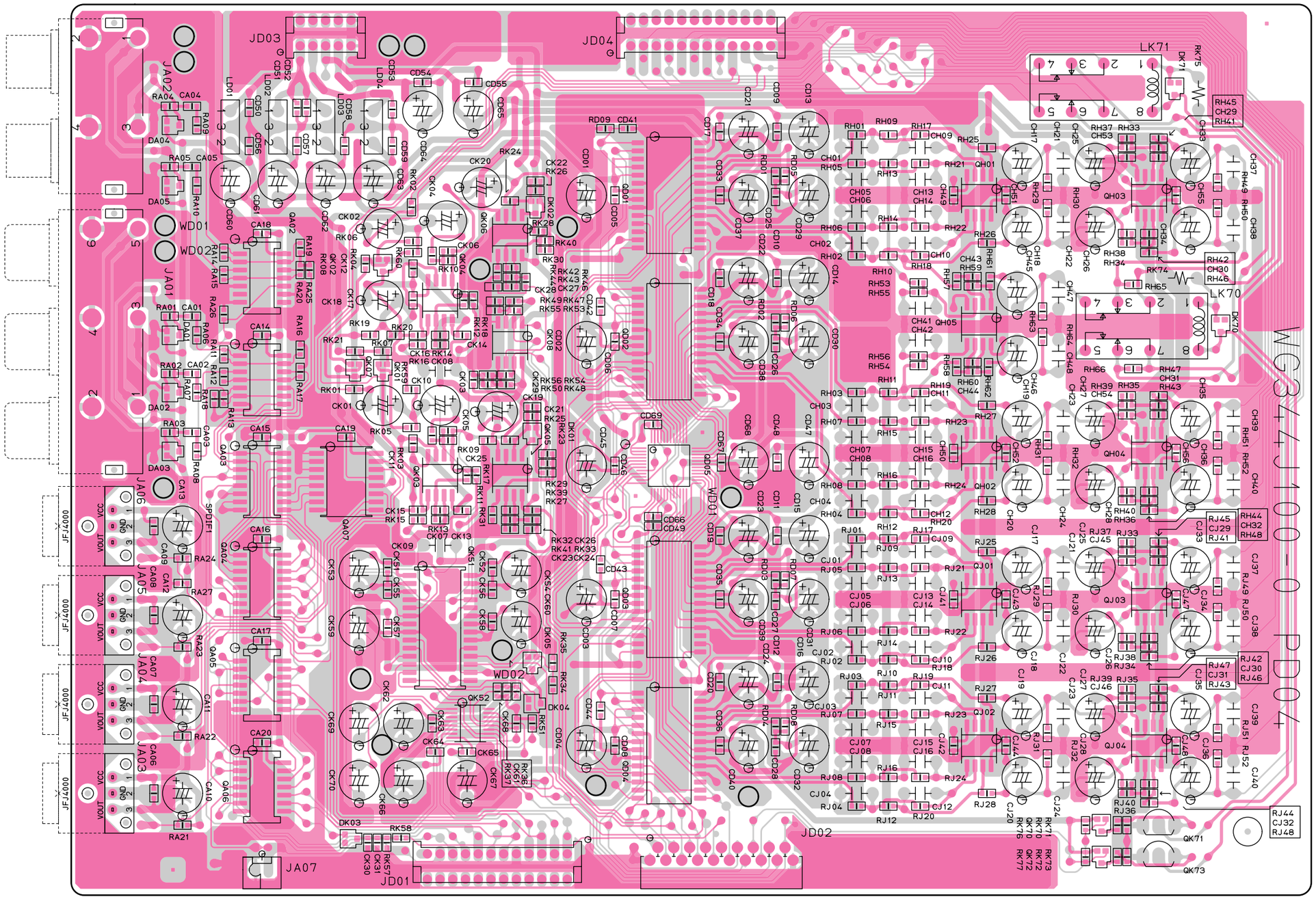
PP04 AUX

6. PARTS LOCATION


P604
QU60 - QU69 DU81
QU80 - QU86 DU80 QU70
QU50 QU71
QR44 QR50
QU01 QU41 QU02
QU03 QU05 QU43
Q676 Q600 Q601 Q611 QU42
Q610
Q683 Q684 QU20 Q681
Q682 Q685 QU21
Q673
Q671
Q641
Q640
Q674 Q670
Q680 Q675
QR91 DU01
JU03
J600
W1344J1012
P604
LG4502-0150
JU61
JU62
JU82
JU50
JU80
JU81
JU02
JU04
JU05
JU01
QU01
QU02
QU03
QU04
QU05
QU06
QU07
QU08
QU09
QU10
QU11
QU12
QU13
QU14
QU15
QU16
QU17
QU18
QU19
QU20
QU21
QU22
QU23
QU24
QU25
QU26
QU27
QU28
QU29
QU30
QU31
QU32
QU33
QU34
QU35
QU36
QU37
QU38
QU39
QU40
QU41
QU42
QU43
QU44
QU45
QU46
QU47
QU50
QU51
QU52
QU53
QU54
QU55
QU56
QU57
QU58
QU59
QU60
QU61
QU62
QU63
QU64
QU65
QU66
QU67
QU68
QU69
QU70
QU71
QU72
QU73
QU74
QU75
QU76
QU77
QU78
QU79
QU80
QU81
QU82
QU83
QU84
QU85
QU86
SU01
SU02
SU03
XU01
XR50
XR91
J601
J602
Q600
Q601
Q610
Q611
Q640
Q641
Q670
Q671
Q673
Q674
Q675
Q676
Q680
Q681
Q682
Q683
Q684
Q685
T601
T602
T603
T604
T605
T606
T607
T608
T609
T610
T611
T612
T613
T614
T615
T616
T617
T618
T619
T620
T621
T622
T623
T624
T625
T626
T627
T628
T629
T630
T631
T632
T633
T634
T635
T636
T637
T638
T639
T640
T641
T642
T643
T644
T645
T646
T647
T648
T649
T650
T651
T652
T653
T654
T655
T656
T657
T658
T659
T660
T661
T662
T670
T671
T680
T681
C600
C601
C602
C603
C604
C605
C606
C607
C608
C609
C610
C611
C612
C613
C614
C615
C616
C617
C618
C619
C620
C621
C622
C623
C624
C625
C626
C627
C628
C629
C630
C631
C632
C633
C634
C635
C636
C637
C638
C639
C640
C641
C642
C643
C644
C645
C646
C647
C648
C649
C650
C651
C652
C670
C671
C672
C673
C674
C675
C676
C677
C678
C679
C680
C681
C682
C683
C684
C685
C686
C687
C688
C689
C690
C691
C692
C693
L691
L692
L693
L694
L695
L696
L697
L698
L699
L700
L701
L702
L703
L704
L705
L706
L707
L708
L709
L710
L711
L712
L713
L714
L715
L716
L717
L718
L719
L720
L721
L722
L723
L724
L725
L726
L727
L728
L729
L730

PD04

DA01 - DA04 QA01 - QA06 QK01 QK02 QK04 QK06 DK02 QD01 - QD04 QH01 QH03 DK71
QK07 QK03 QK08 QH05 QH02 QH04 DK70
QA07 QK51 QK05 DK01 QJ01 QJ02 QJ03 QJ04
DK03 QK52 DK05 DK04 QK70 - QK73



PY04

QY01

D868 Q858 D866 Q857

DM81 - DM91 DM92 DM93 QM81

QM83 - QM90 QT03 Q951

QT02 QT04 Q901 Q902 Q855

D865 Q856 D867 Q903 Q904 D864

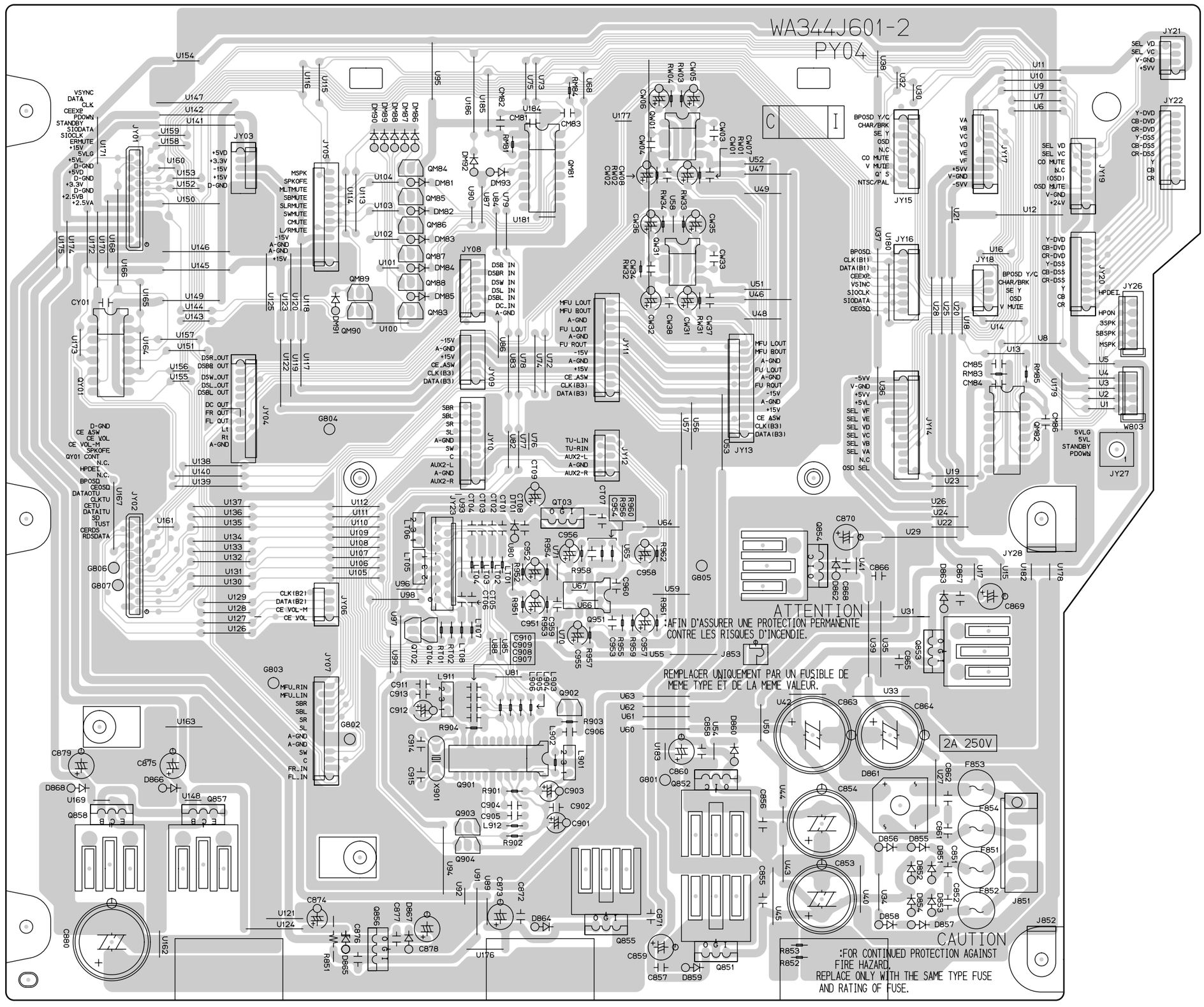
QW01

QW31

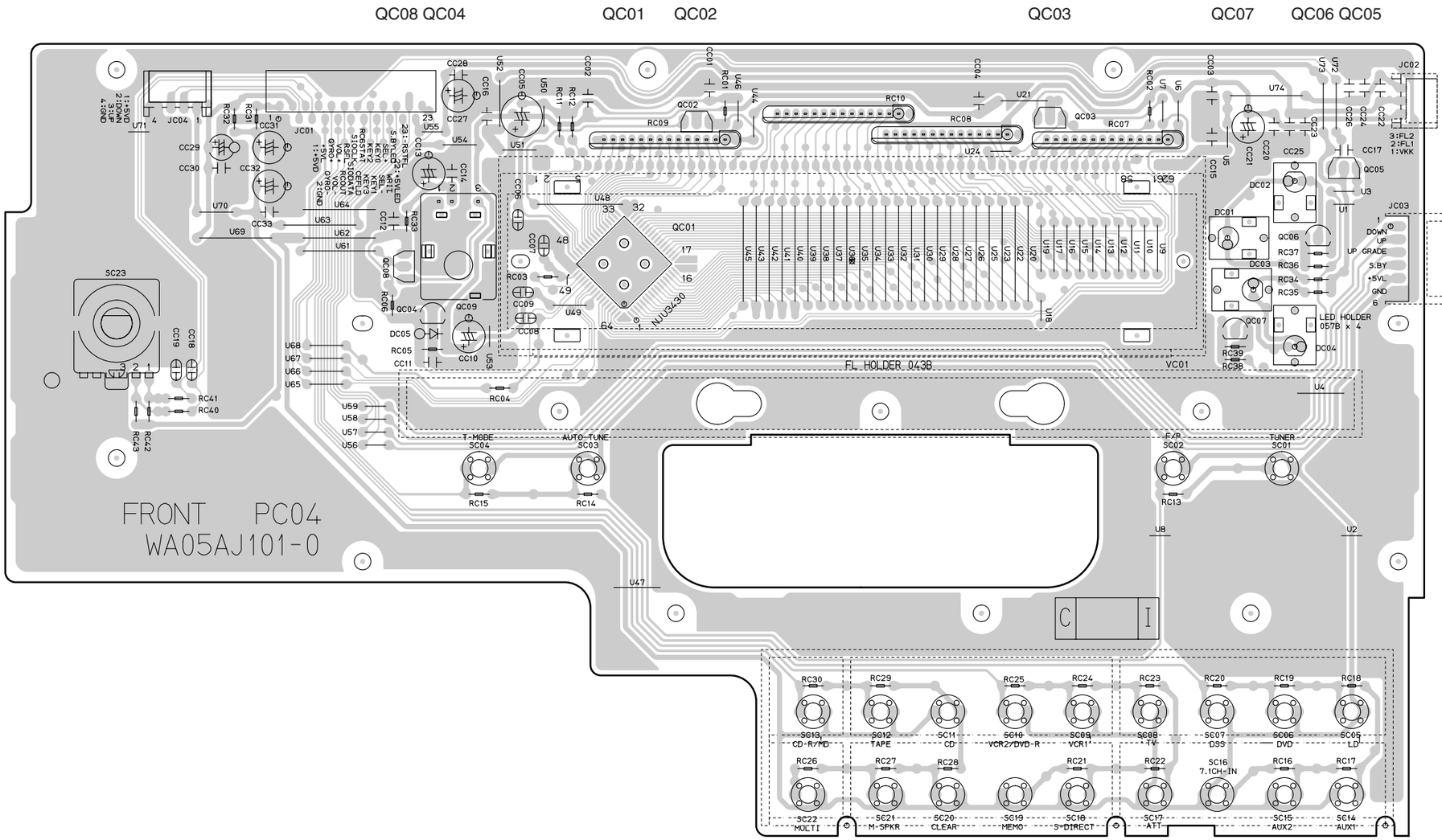
Q852 D860 Q854 D862 D861 D863 Q853

D859 Q851 D851 - D858

QM82

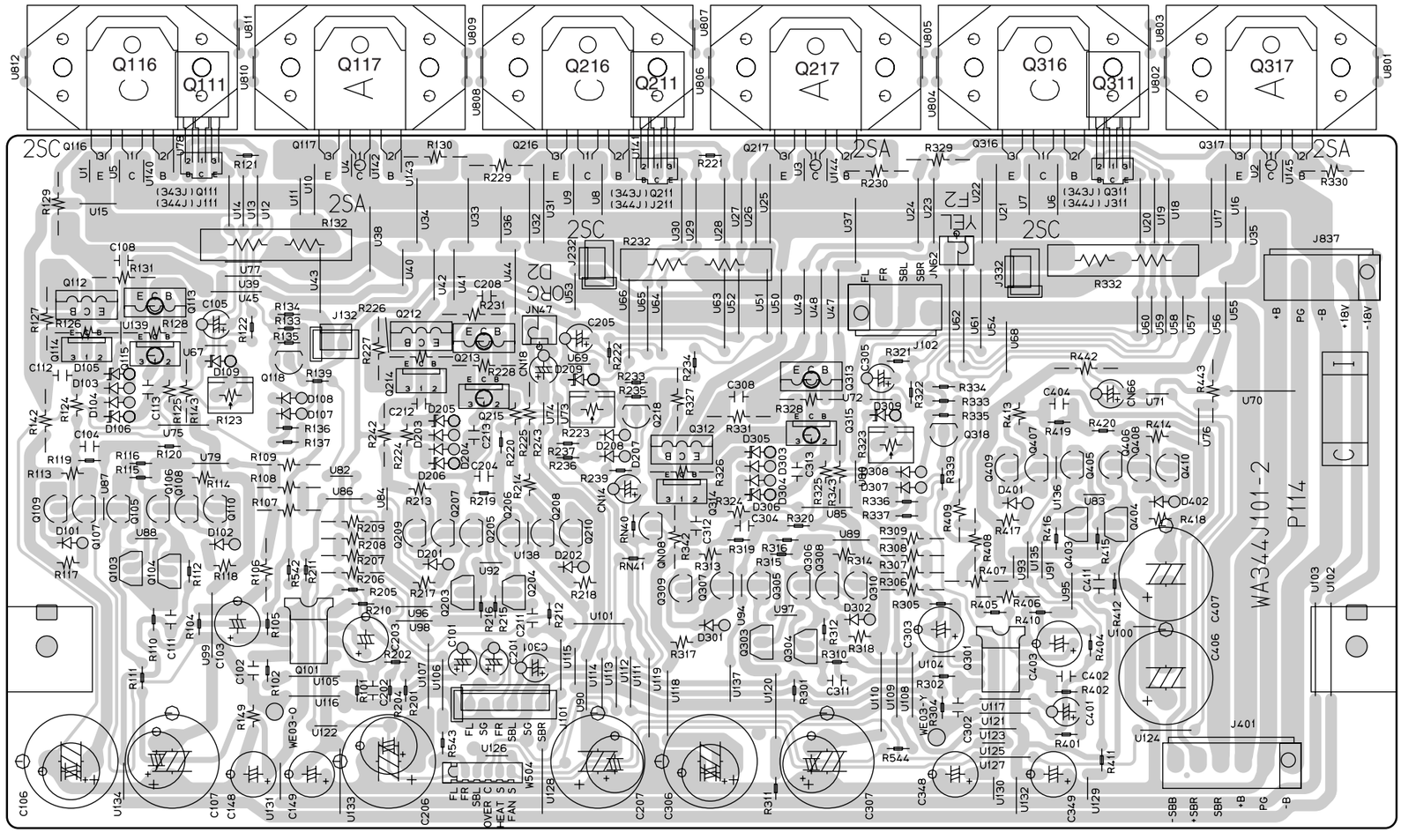

WA344J601-2
PY04
ATTENTION
:AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE.
REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET DE LA MEME VALEUR.
2A 250V
CAUTION
:FOR CONTINUED PROTECTION AGAINST FIRE HAZARD.
REPLACE ONLY WITH THE SAME TYPE FUSE AND RATING OF FUSE.

PC04


QC08 QC04
QC01
QC02
QC03
QC07
QC06 QC05
FRONT PC04
WA05AJ101-0
FL HOLDER 043B
LED HOLDER 057B x 4
T-MODE SC04
AUTO TUNE SC03
FXR SC02
TUNER SC01
SC13 CD-R/MD
SC12 TAPE
SC11 CD
SC10 VCR2/DVD-R
SC09 VCR1
SC08 TV
SC07 DSS
SC06 DVD
SC05 LD
SC22 MULTI
SC21 M-SPKR
SC20 CLEAR
SC19 MEMO
SC18 S-DIRECT
SC17 ATT
SC15 AUX2
SC14 AUX1
SC16 7.1CH-IN

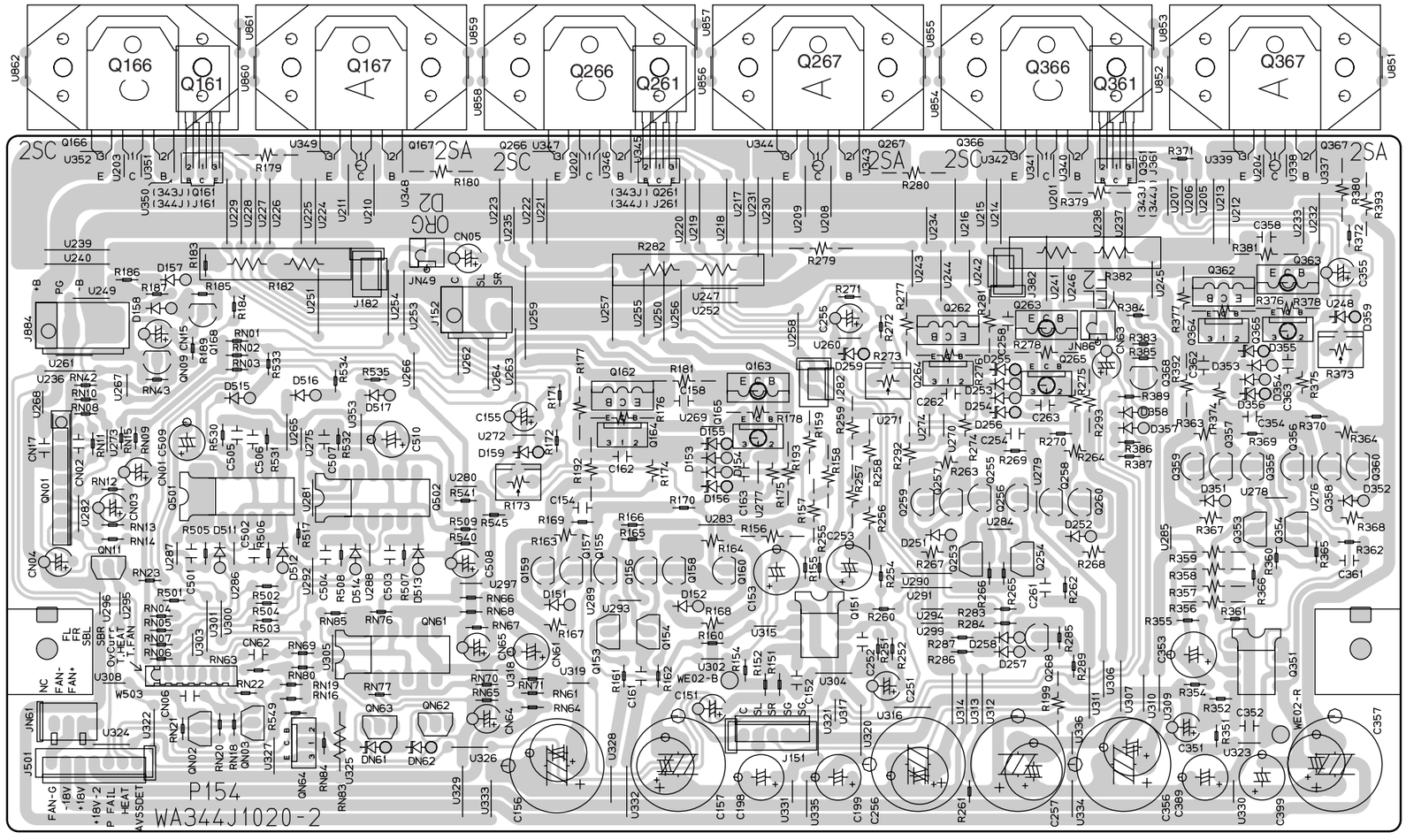
P114

Q112 Q113 Q212 Q213 D209 Q218 Q313
Q114 Q115 D109 Q118 Q214 Q215 D208 Q312 Q315 D309 Q318 Q405 - Q410
D103 - D106 D108 D203 - D206 D207 Q314 D303 - D306 D302 D401 Q403 Q404 D402
Q105 - Q110 D107 Q205 - Q210 QN08 Q305 - Q310 D308 Q301
D101 Q103 Q104 D102 Q101 D201 Q203 Q204 D202 D301 Q303 Q304 D302



P154

D157 D517 D516 D259 Q262 - Q265 Q362 - Q365 D359
D158 Q168 Q502 Q162 - Q165 D253 - D256 D358 D353 - D356
QN09 Q501 D514 D513 D159 D153 - D156 Q255 - Q260 D357 Q355 - Q360
QN11 D511 D512 QN61 Q155 - Q160 Q151 D251 Q253 Q254 D252 D351 Q353 Q354 D352
QN02 QN03 QN64 DN61 QN63 QN62 DN62 D151 Q153 Q154 D152 D256 D257 Q268 Q351



P134
Q111

P174
Q161

P214
Q211

P254
Q261

P314
Q311

P354
Q361

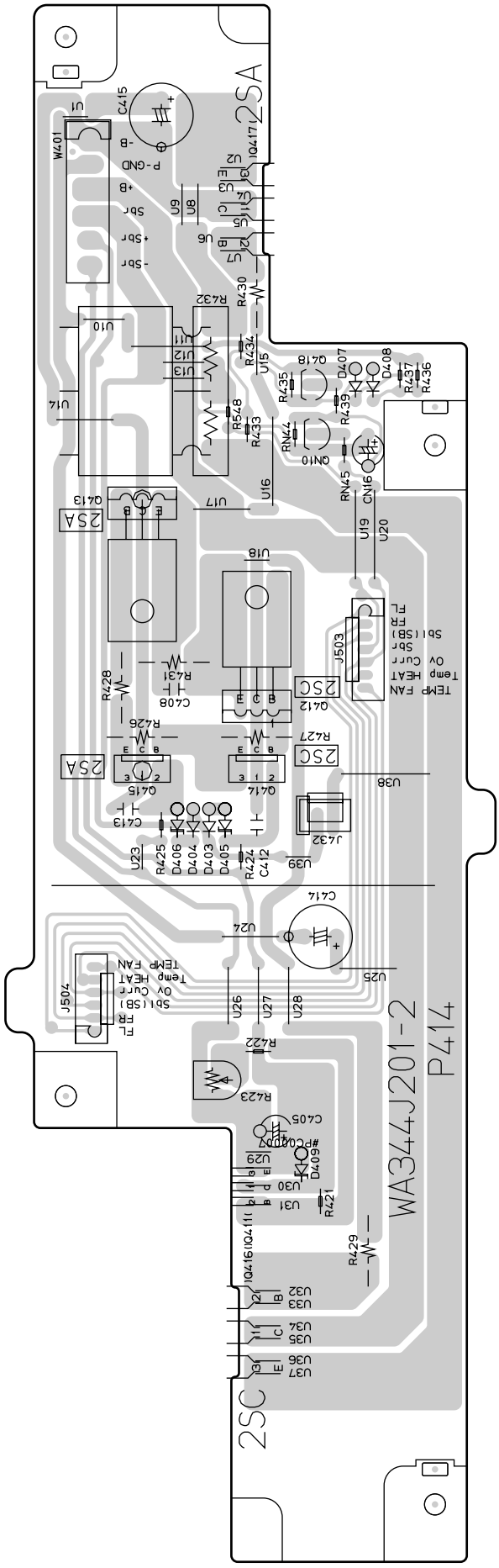
PN14

PN24

PN54

PN64

Q417
QN10 Q418 D408
D407
Q413
Q415
D403 - D406
Q414 Q412
Q411
Q416

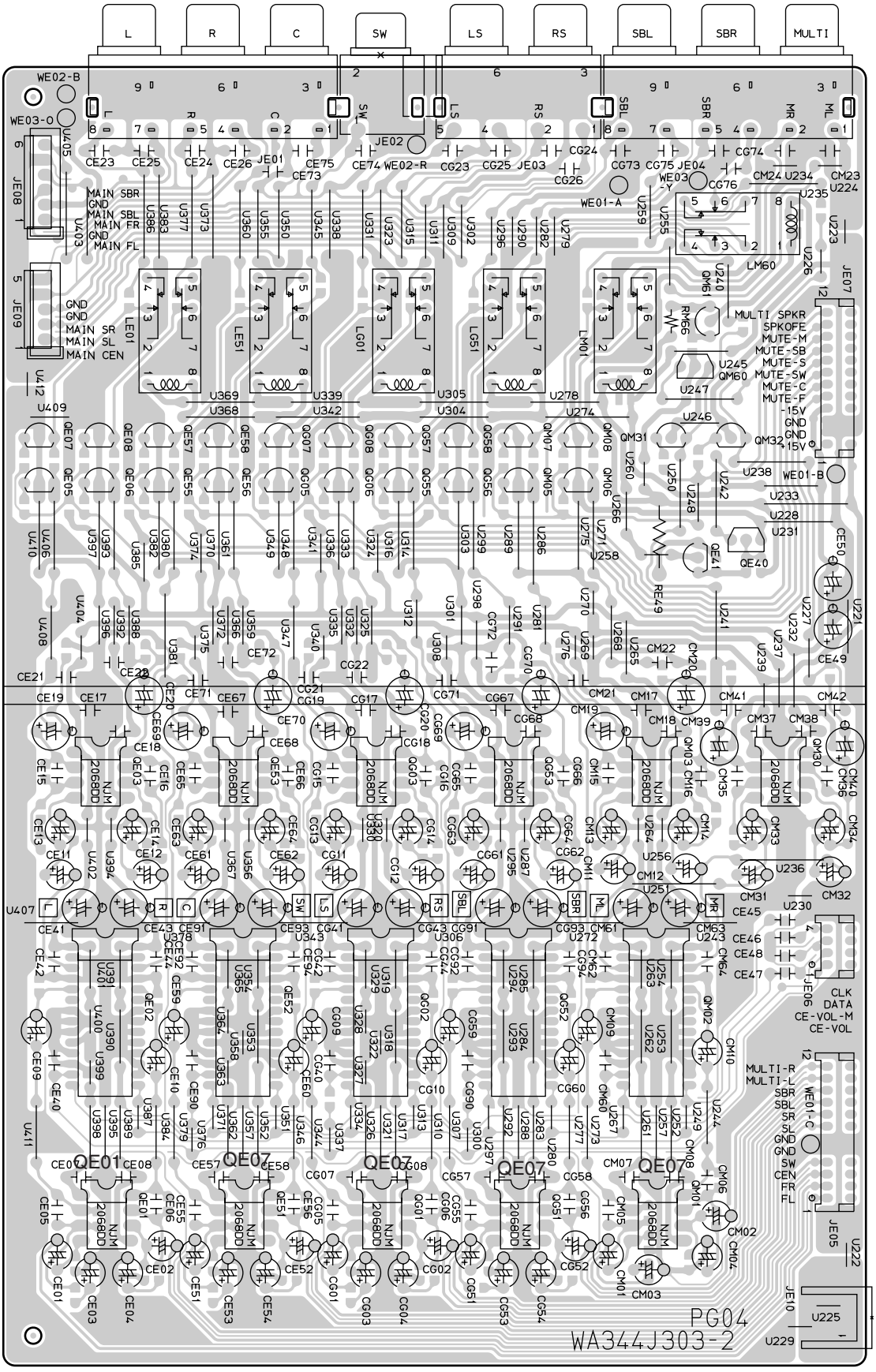


P414

PG04

QE05 - 08 QE55- 58 QG05 - 08 QG55 -58 QM05 - 08 QM60 QM61 QE31 QE32 QE41 QE40

QE01 - 03 QE51 - 53 QG01 - 03 QG51 - 53 QM01 - 03 QM30

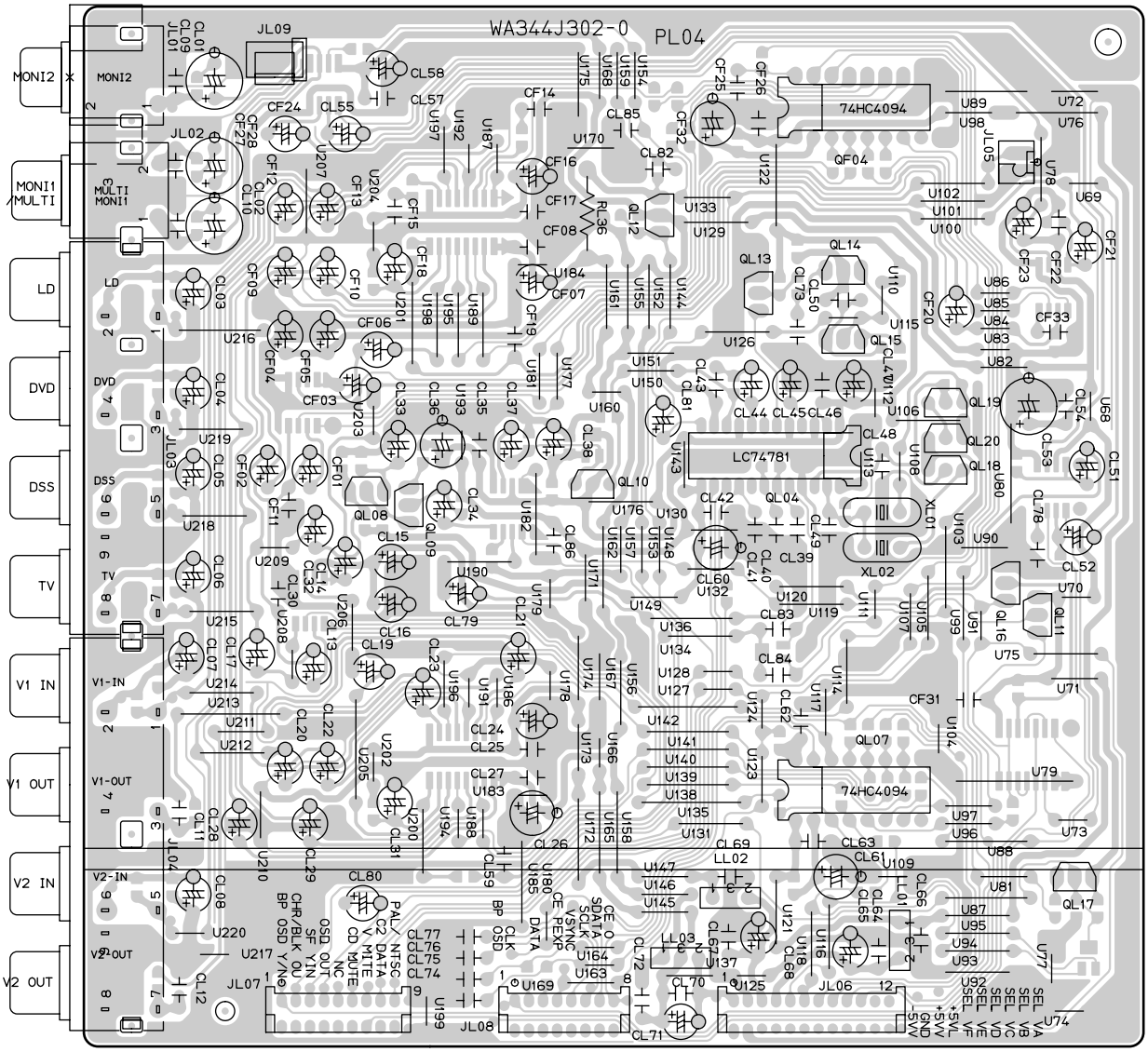


PL04

QL12 QL13 - QL15 QF04

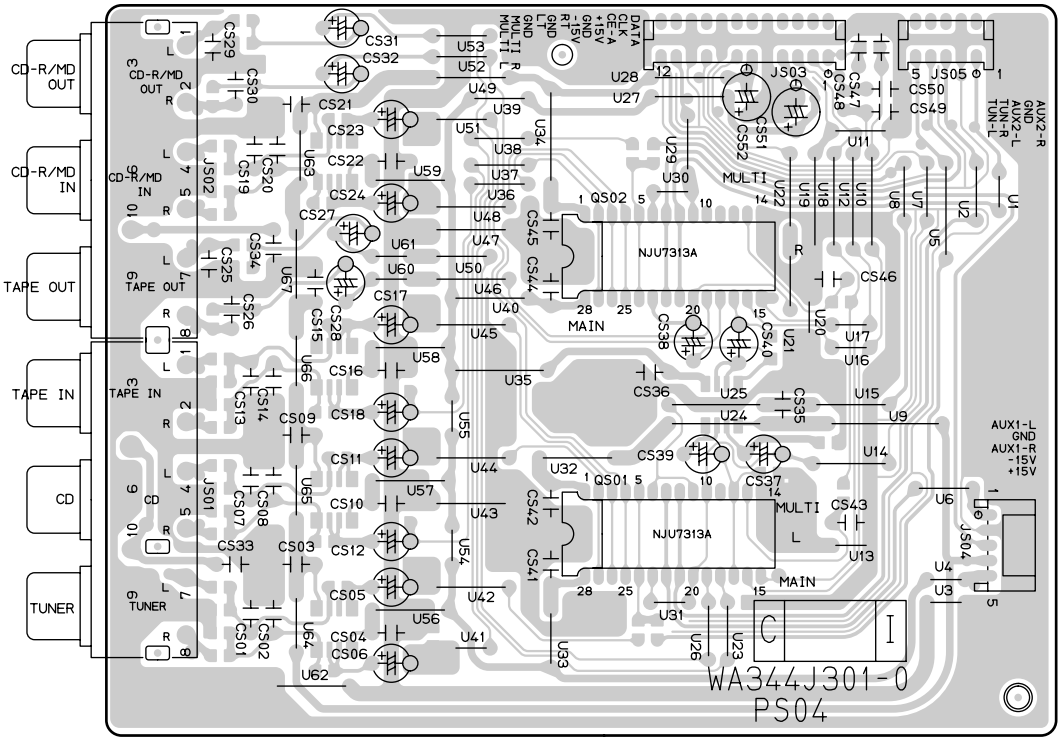
QL08 QL09 QL10 QL04 QL18 - QL20

QL07 QL16 QL11 QL17



PS04

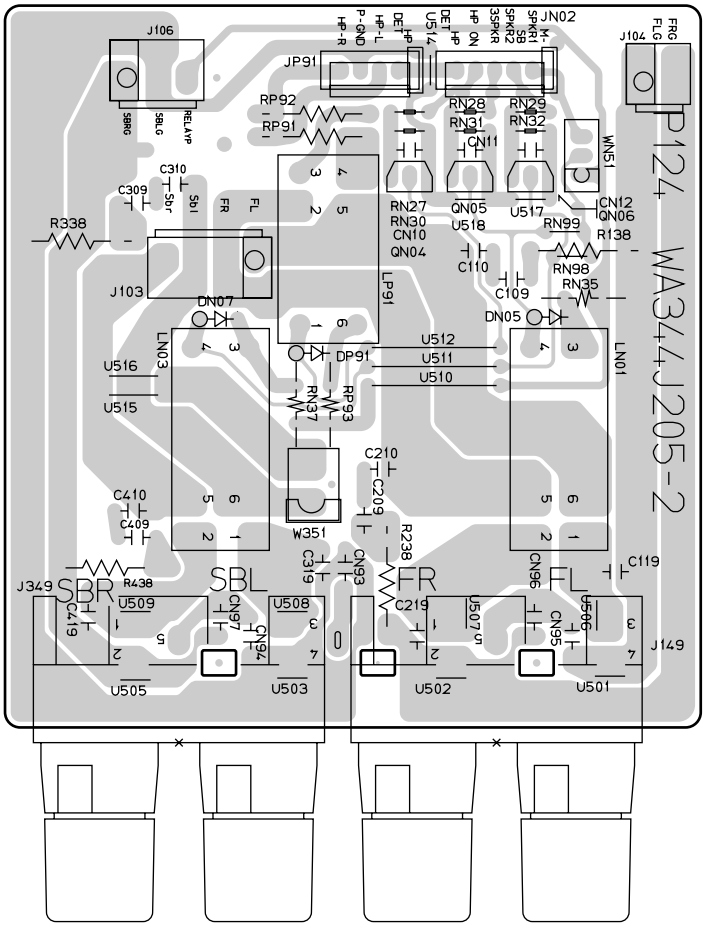
QS02 QS01



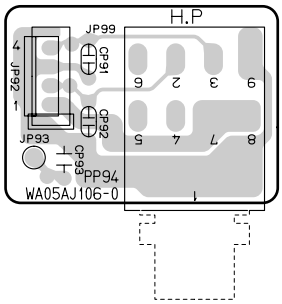
P124

QN04 - QN06

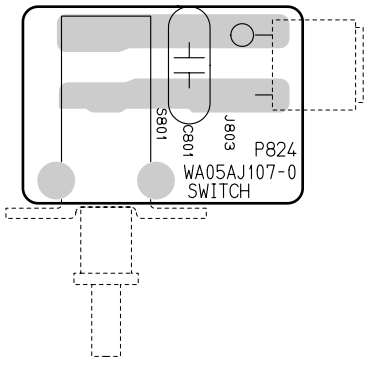
DN07 DN05



PP94



P824

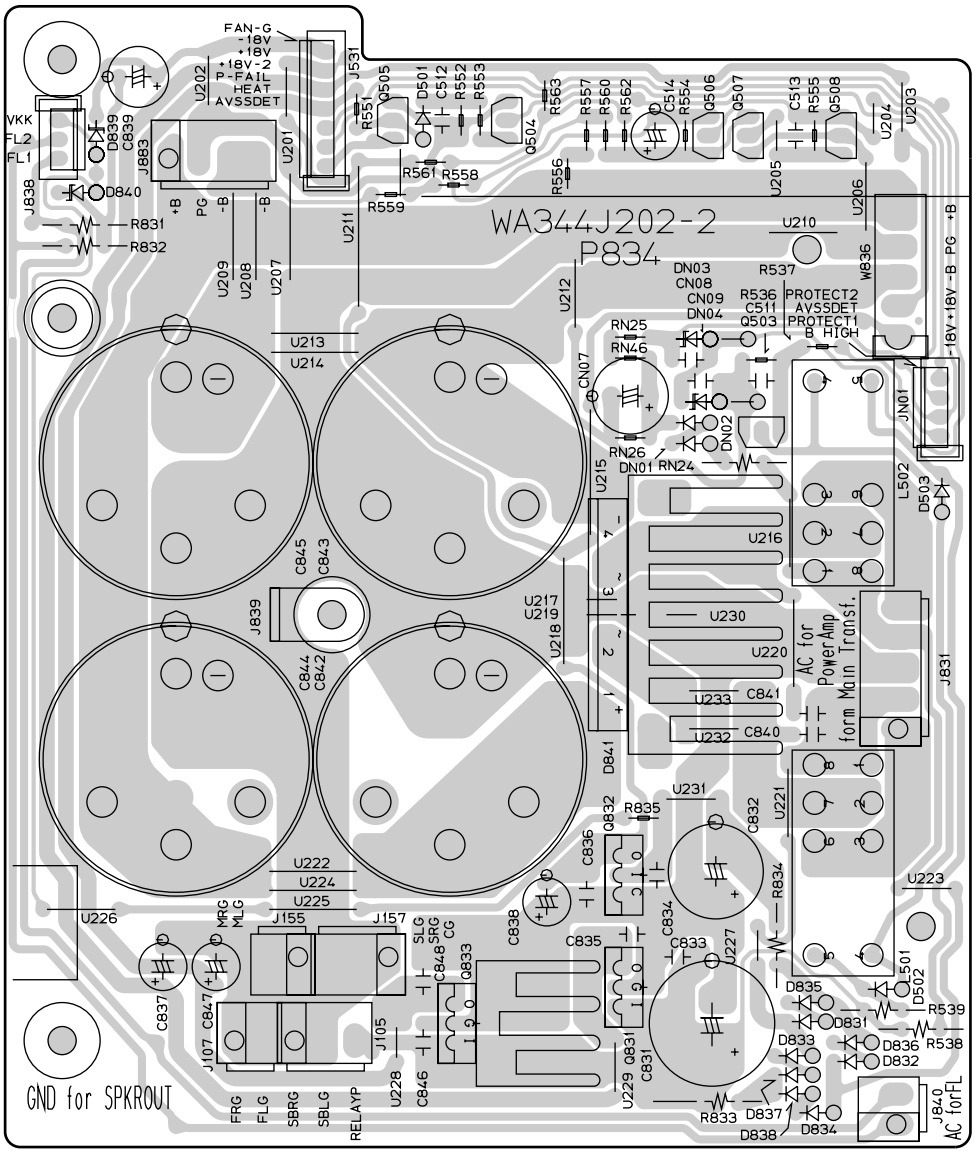


P834

D839 D840 Q505 D501 Q504 Q506 Q507 Q508

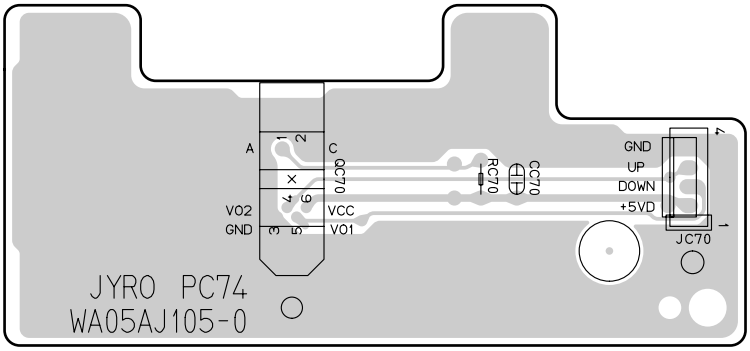
DN01 - DN04 D503

Q833 Q831 Q832 D831 - D838 D502



PC74

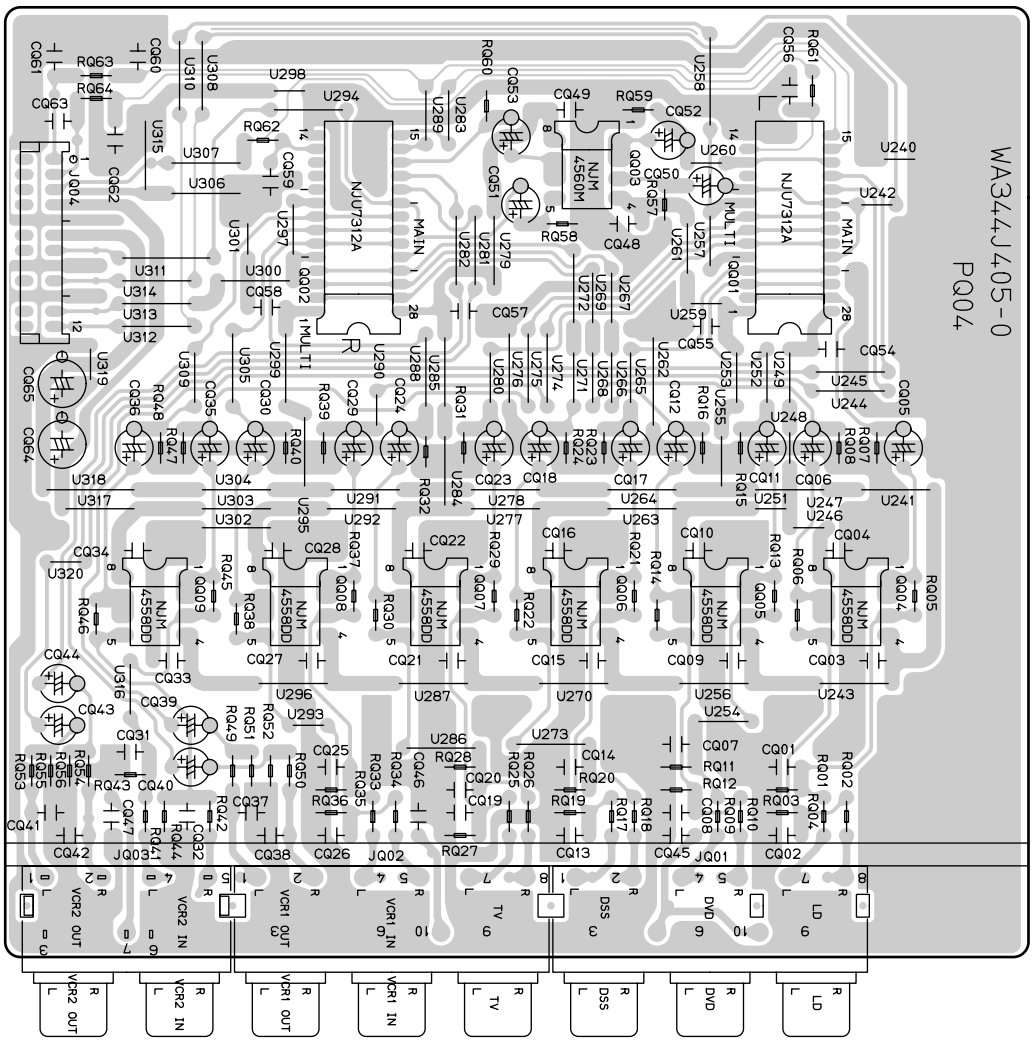
QC70



PQ04

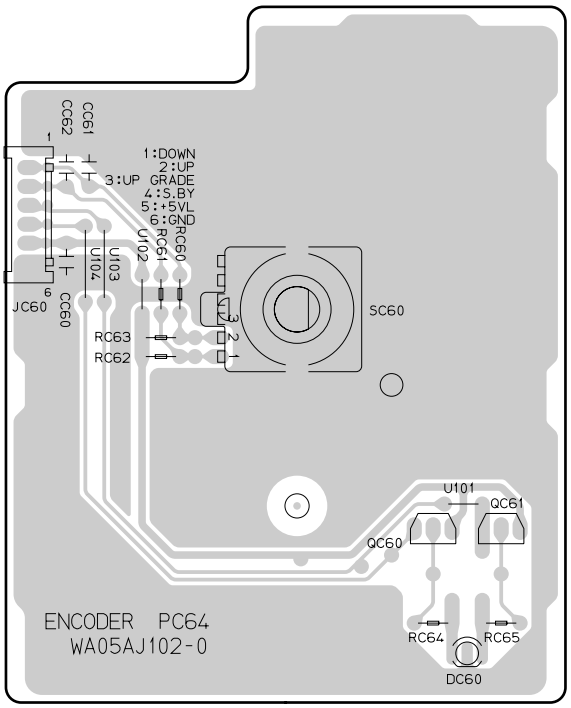
QQ02 QQ03 QQ01

QQ09 QQ08 QQ07 QQ06 QQ05 QQ04

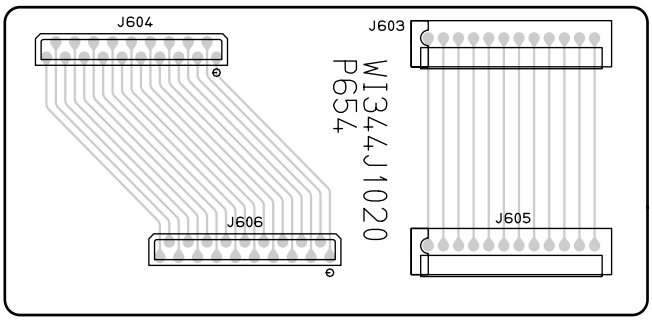


PC64

QC60 QC61

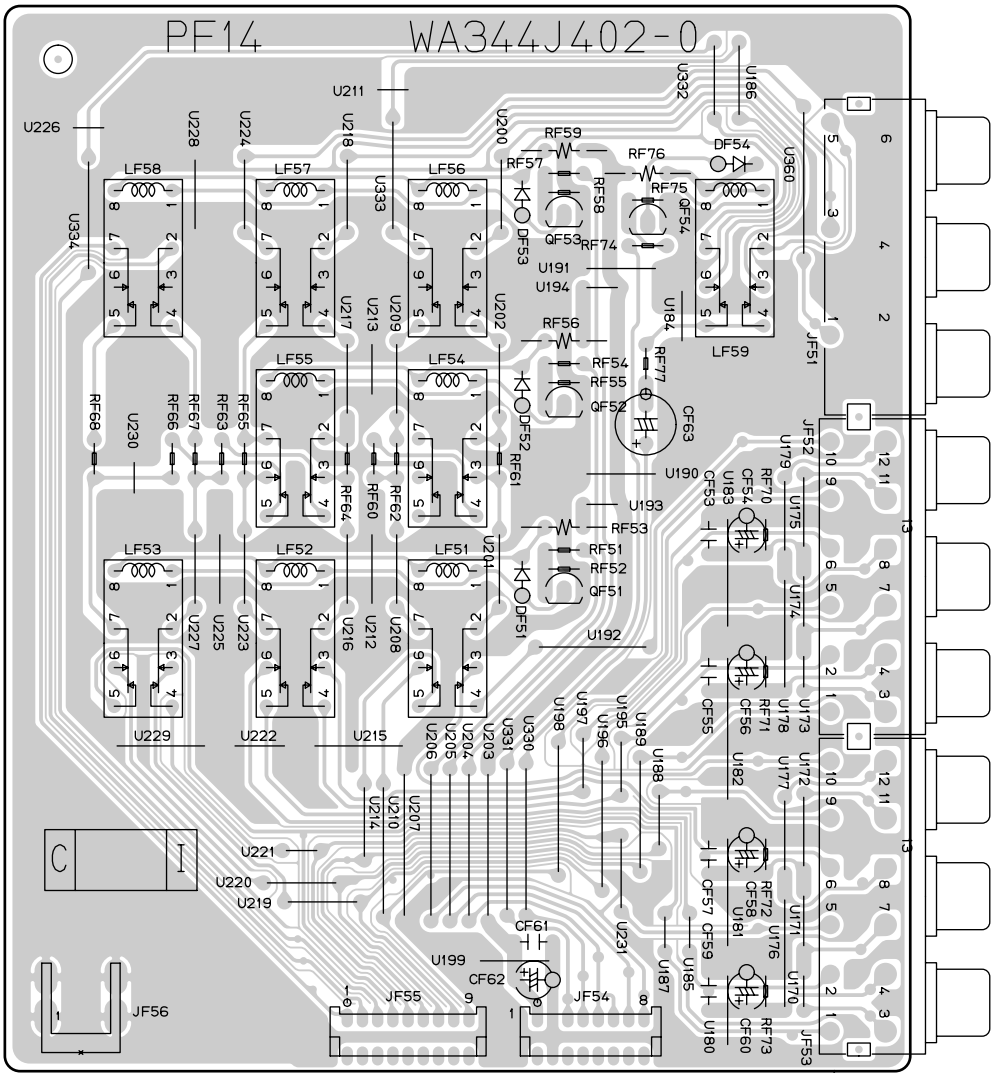


P654

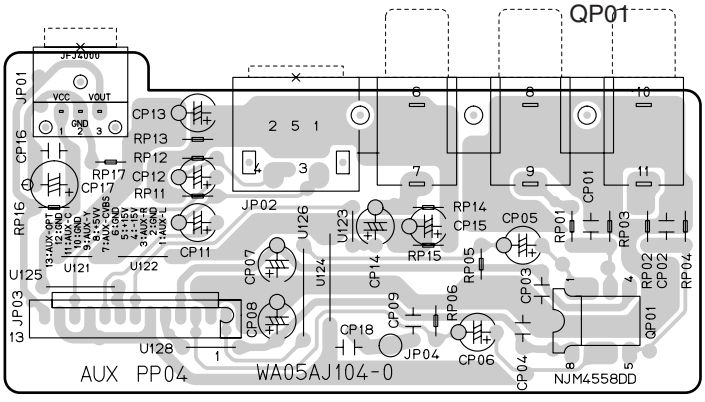


PF14

DF51 QF51 QF54 DF54
DF52 QF52
DF53 QF53

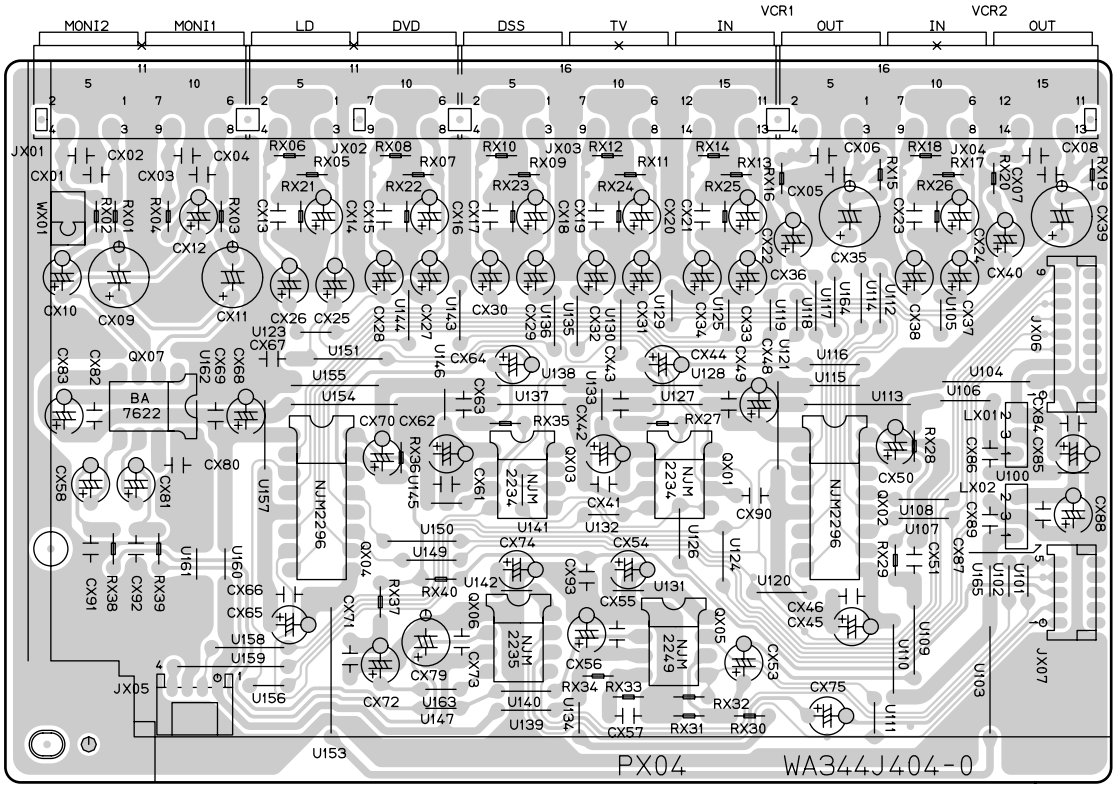


PP04



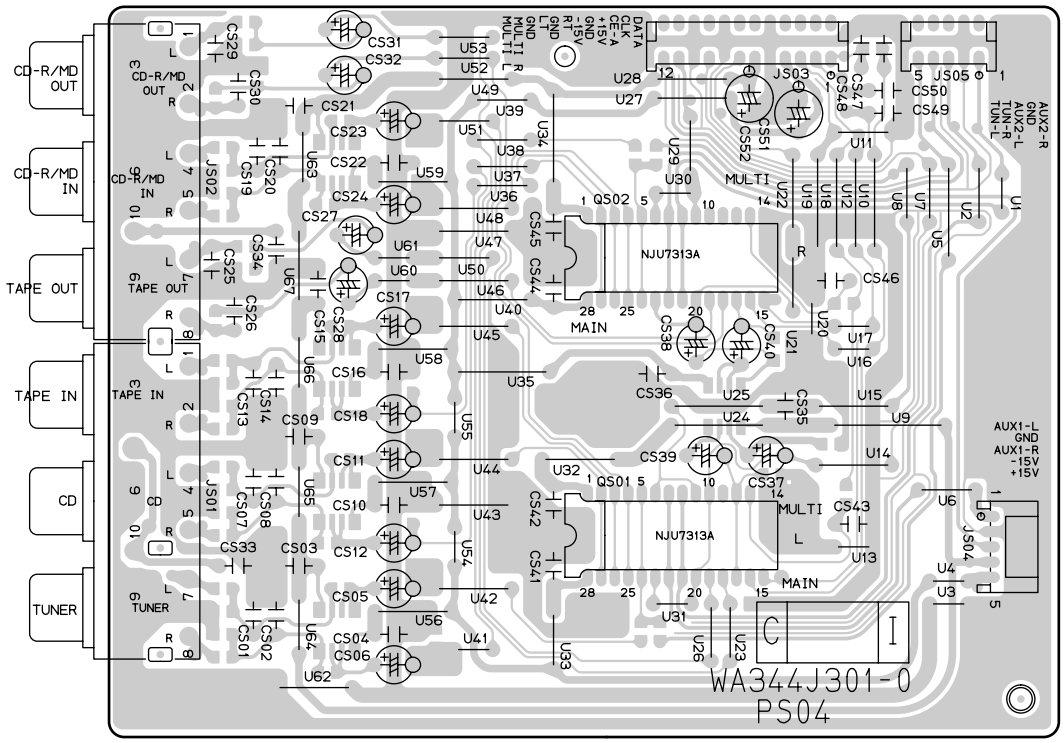
PX04

QX07 QX04 QX03 QX01 QX02
QX06 QX05



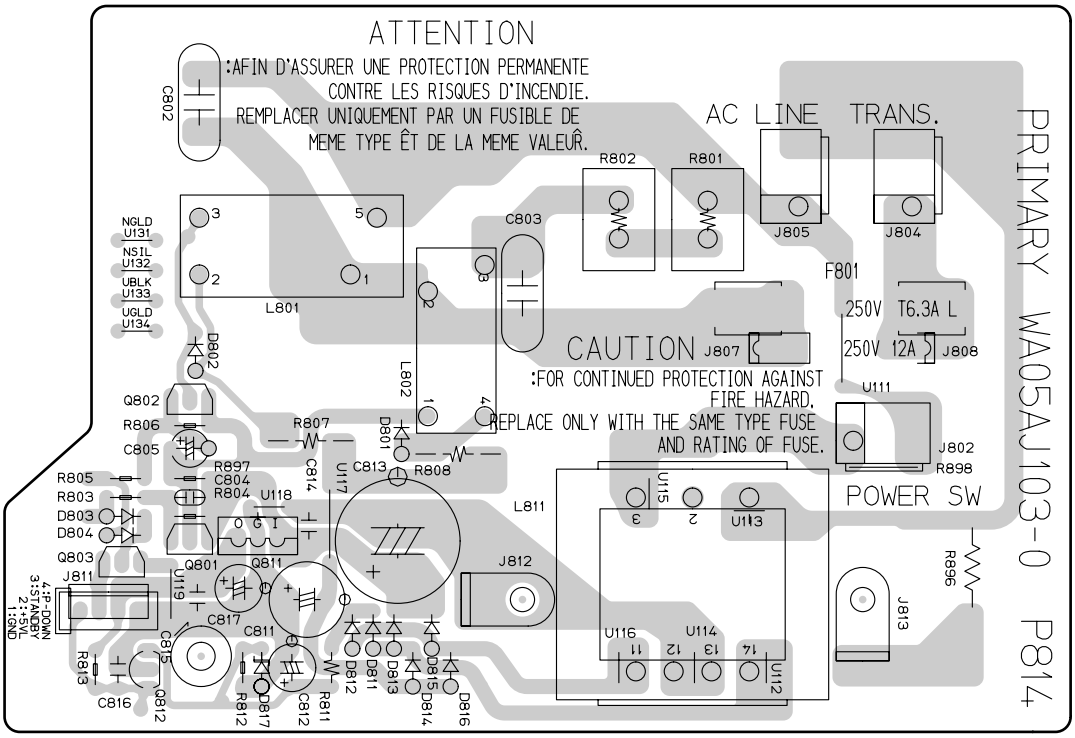
PS04

QS02 QS01



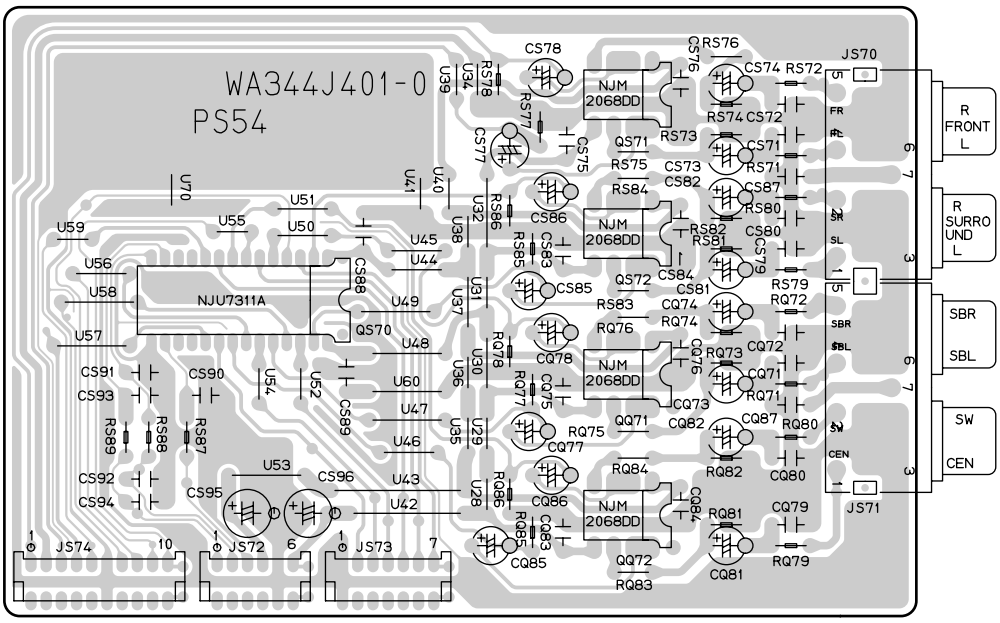
P814

Q802
Q803 Q801 Q811
Q812

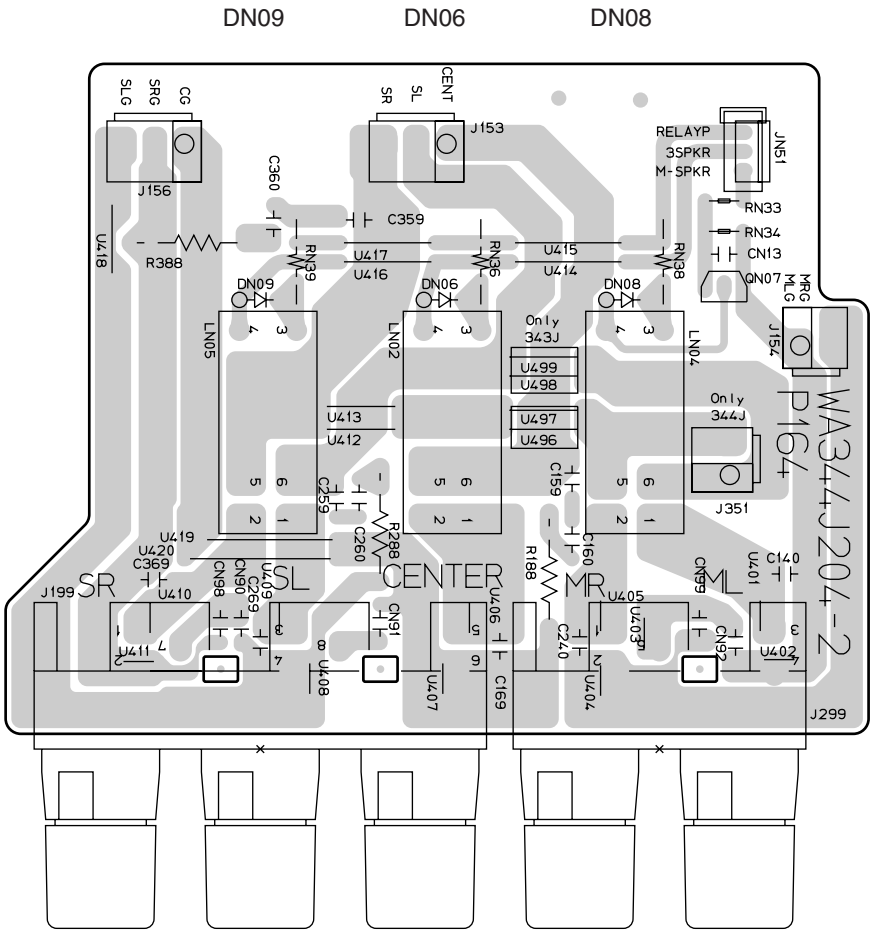


PS54

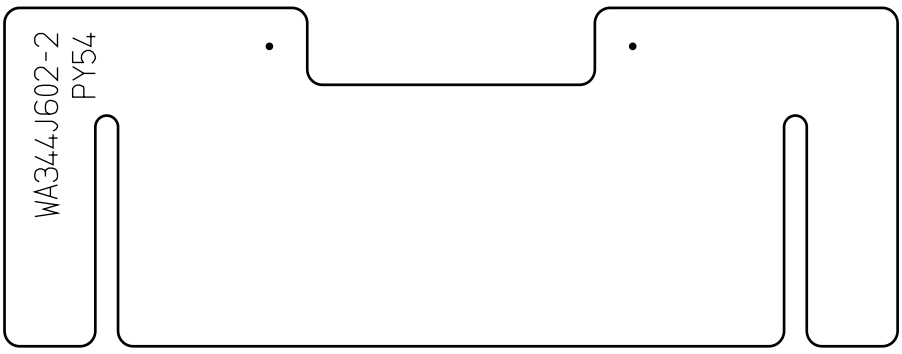
QS71 QS72
QS70 QQ71 QQ72



P164


DN09
DN06
DN08
SLG
SRG
CG
SR
SL
CENT
J153
J156
RELAYP
3SPKR
M-SPKR
JN51
RN33
RN34
CN13
QN07
MRG
MLG
J154
C360
C359
U418
R388
RN39
U417
U416
RN36
U415
U414
RN38
LN05
LN02
LN04
Only
343J
U499
U498
U497
U496
U413
U412
Only
344J
J351
C259
C260
R288
C159
C160
R188
U419
U420
C369
J199
SR
U410
CN98
CN90
C269
U409
SL
CENTER
CN91
U406
C169
U408
U407
MR
U405
U403
C240
U404
CN99
ML
C140
U401
CN92
U402
U411
J299
WA344J204-2
P164

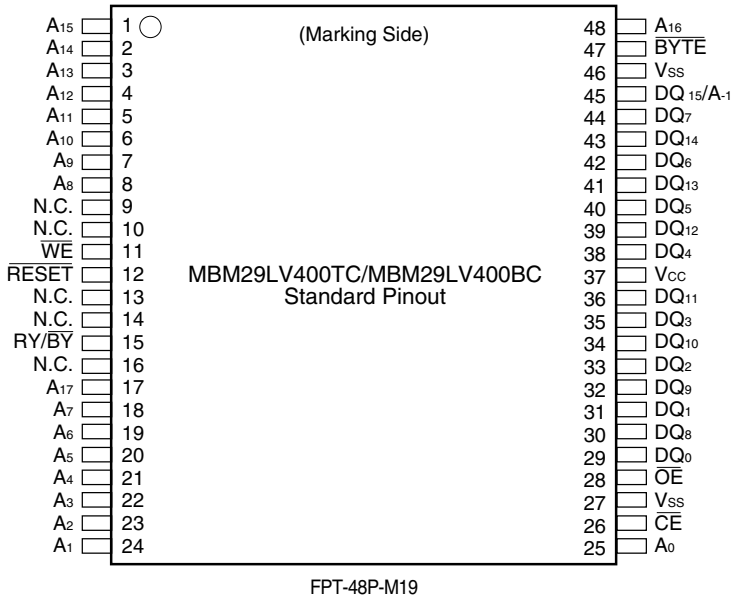
PY54


WA344J602-2
PY54

7. IC DATA

Q671 : MBM29LV400TC

Pin Assignment



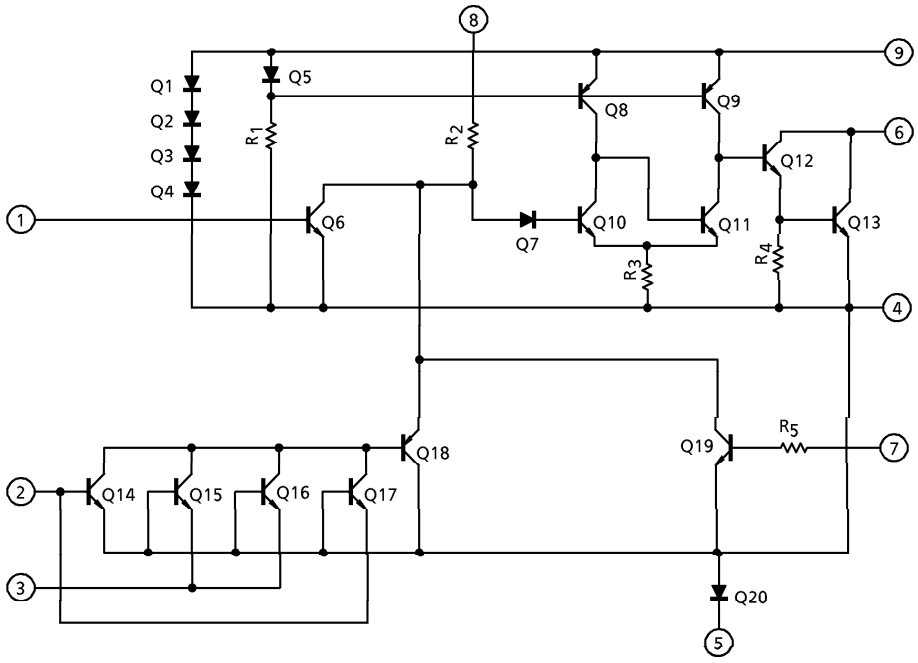
FPT-48P-M19

Pin Configuration

Pin	Function
A_{-1}, A_0 to A_{17}	Address Inputs
DQ_0 to DQ_{15}	Data Inputs/Outputs
$\overline{CE}$	Chip Enable
$\overline{OE}$	Output Enable
$\overline{WE}$	Write Enable
RY/$\overline{BY}$	Ready/Busy Output
$\overline{RESET}$	Hardware Reset Pin/Temporary Sector Unprotection
$\overline{BYTE}$	Selects 8-bit or 16-bit mode
N.C.	No Internal Connection
V_{SS}	Device Ground
V_{CC}	Device Power Supply

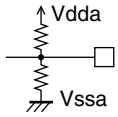
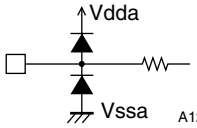
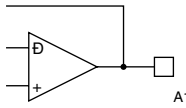
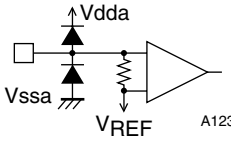
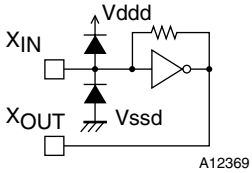
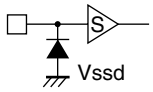
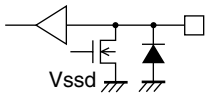
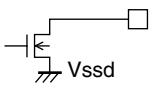
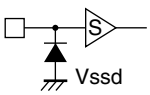
QN01 : TA7317P

Equivalemt Circuit Diagram



Q901 : LC72722M

Pin Functions

Pin No.	Pin name	Function	I/O	Pin circuit
1	VREF	Reference voltage output (Vdda/2)	Output	
2	MPXIN	Baseband (multiplexed) signal input	Input	
5	FLOUT	Subcarrier output (filter output)	Output	
6	CIN	Subcarrier input (comparator input)	Input	
3	Vdda	Analog system power supply (+5 V)	Ñ	Ñ
4	Vssa	Analog system ground	Ñ	Ñ
12	XOUT	Crystal oscillator output (4.332/8.664 MHz)	Output	
13	XIN	Crystal oscillator input (external reference signal input)	Input	
7	T1	Test input (This pin must always be connected to ground.)		
8	T2	Test input (standby control) 0: Normal operation, 1: Standby state (crystal oscillator stopped)		
9	T3 (RDCL)	Test I/O (RDS clock output)	I/O*	
10	T4 (RDDA)	Test I/O (RDS data output)		
11	T5 (RSFT)	Test I/O (soft-decision control data output)		
16	T6 (ERROR/57K/TP/BE1)	Test I/O (error status output, regenerated carrier output, TP output, error block count output)		
17	T7 (CORREC/ARI-ID/TA/BE0)	Test I/O (Error correction status output, SK detection output, TA output, error block count output)		
18	SYNC	Block synchronization detection output		
19	RDS-ID	RDS detection output	Output	
20	DO	Data output		
21	CL	Clock input — Serial data interface (CCB)	Input	
22	DI	Data input		
23	CE	Chip enable		
24	SYR	Synchronization and RAM address reset (active high)		
14	Vddd	Digital system power supply (+5 V)	Ñ	Ñ
15	Vssd	Digital system ground	Ñ	Ñ

Note: * Normally function as an output pin. Used as an I/O pin in test mode, which is not available to user applications.

Pin Functions

No.	Pin name	I/O	Function
1	DISEL	I	Data input pin (DIN0, DIN1) selection input pin
2	DOUT	O	Input bi-phase data through output pin
3	DIN0	I	Digital data input pin (CMOS level, with pull-down resistance when no selected)
4	DIN1	I	Digital data input pin (CMOS level, with pull-down resistance when no selected)
5	DIN2	I	Digital data input pin (TTL level)
6	DGND		Digital GND
7	DVDD		Digital power supply
8	R	I	VCO gain control input pin
9	VIN	I	VCO free-running frequency setting input pin
10	LPF	O	PLL loop filter setting pin
11	AVDD		Analog power supply
12	AGND		Analog GND
13	CKOUT	O	Clock output pin (256 fs, 384 fs, 512 fs, crystal oscillation, VCO free-running oscillation)
14	BCK	O	64 fs clock output pin
15	LRCK	O	fs clock output pin (L = R-ch, H = L-ch, I^2S = inverted)
16	DATAO	O	Data output pin
17	XSTATE	O	Source clock switch monitor output pin
18	DGND		Digital GND
19	DVDD		Digital power supply
20	XMCK	O	Crystal oscillation clock output pin (24.576 MHz or 12.288 MHz)
21	XOUT	O	Crystal oscillator connection output pin
22	XIN	I	Crystal oscillator connection input pin, external signal input supported (24.576 MHz or 12.288 MHz)
23	EMPHA	O	Channel status emphasis information output pin
24	AUDIO	O	Channel status bit 1 (non-PCM data detection bit) output pin
25	CSFLAG	O	First 40 channel status bits update flag output pin
26	F0/P0/C0	O	Input fs calculation signal output/Pc data type output/input word length information output pin
27	F1/P1/C1	O	Input fs calculation signal output/Pc data type output/input word length nformation output pin
28	F2/P2/C2	O	Input fs calculation signal output/Pc data type output/input word length information output pin
29	VF/P3/C3	O	Validity flag output/Pc data type output/input word length information output pin
30	DVDD		Digital GND
31	DGND		Digital power supply
32	AUTO	O	Non-PCM burst data transfer detection signal (Pa, Pb detection) output pin
33	BPSYNC	O	Non-PCM burst preamble Pa, Pb, Pc, Pd sync signal output pin
34	ERROR	O	PLL lock error or data error flag output pin
35	DO	O	Microcontroller IF/read data output pin
36	DI	I	Microcontroller IF/write data input pin
37	CE	I	Microcontroller IF/Chip enable input pin
38	CL	I	Microcontroller IF/clock input pin
39	XSEL	I	[XIN] crystal oscillation selection input pin (24.576 MHz or 12.288 MHz)
40	MODE0	I	Mode setting input pin
41	MODE1	I	Mode setting input pin
42	DGND		Digital GND
43	DVDD		Digital power supply
44	DOSEL0	I	Output data format selection input pin
45	DOSEL1	I	Output data format selection input pin
46	CKSEL0	I	Output clock selection input pin
47	CKSEL1	I	Output clock selection input pin
48	XMODE	I	System reset input pin

Note: * Perform digital power supply (DVDD) and analog power supply (AVDD) ON/OFF with the same potential and the same timing as a latch-up countermeasure.

Pin Description

No.	Pin Name	I/O	Function
1	VREFL	O	Lch Reference Voltage Pin, 3.75V Normally connected to GNDL with a 10μF electrolytic capacitor and a 0.1μF ceramic capacitor
2	GNDL	-	Lch Reference Ground Pin, 0V
3	VCOML	O	Lch Common Voltage Pin, 2.75V
4	AINL+	I	Lch Analog positive input Pin
5	AINL-	I	Lch Analog negative input Pin
6	ZCAL	I	Zero Calibration Control Pin This pin controls the calibration reference signal. "L": VCOML and VCOMR "H": Analog Input Pins (AINL ±, AINR±)
7	VD	-	Digital Power Supply Pin, 3.3V
8	DGND	-	Digital Ground Pin, 0V
9	CAL	O	Calibration Active Signal Pin "H" means the offset calibration cycle is in progress. Offset calibration starts when $\overline{\text{RST}}$ goes "H". CAL goes "L" after 8704 LRCK cycles for DFS="L", 17408 LRCK cycles for DFS ="H".
10	$\overline{\text{RST}}$	I	Reset Pin When "L", Digital section is powered-down. Upon returning "H", an offset calibration cycle is started. An offset calibration cycle should always be initiated after power-up.
11 12	SMODE2 SMODE1	I I	Serial Interface Mode Select Pin MSB first, 2's compliment. SMODE2 SMODE1 MODE LRCK L L Slave mode : MSB justified : H/L L H Master mode : Similar to I^2S : H/L H L Slave mode : I^2S : L/H H H Master mode : I^2S : L/H
13	LRCK	I/O	Left/Right Channel Select Clock Pin LRCK goes "H" at SMODE2="L" and "L" at SMODE2="H" during reset when SMODE1 "H".
14	SCLK	I/O	Serial Data Clock Pin Data is clocked out on the falling edge of SCLK. Slave mode: SCLK requires more than 48fs clock. Master mode: SCLK outputs a 128fs(DFS="L") or 64fs(DFS="H") clock. SCLK stays "L" during reset.
15	SDATA	O	Serial Data Output Pin MSB first, 2's complement. SDATA stays "L" during reset.
16	FSYNC	I/O	Frame Synchronization Signal Pin Slave mode: When "H", the data bits are clocked out on SDATA. In I^2S mode, FSYNC is Don't care. Master mode: FSYNC outputs 2fs clock. FSYNC stays "L" during reset.
17	MCLK	I	Master Clock Input Pin 256fs at DFS="L", 128fs at DFS="H".
18	DFS	I	Double Speed Sampling Mode Pin "L": Normal Speed "H": Double Speed

19	HPFE	I	High Pass Filter Enable Pin "L": Disable "H": Enable
20	TEST	I	Test Pin(pull-down pin) Should be connected to GND.
21	BGND	-	Substrate Ground Pin, 0V
22	AGND	-	Analog Ground Pin, 0V
23	VA	-	Analog Supply Pin, 5V
24	AINR-	I	Rch Analog negative input Pin
25	AINR+	I	Rch Analog positive input Pin
26	VCOMR	O	Rch Common Voltage Pin, 2.75V
27	GNDR	-	Rch Reference Ground Pin, 0V
28	VREFR	O	Rch Reference Voltage Pin, 3.75V Normally connected to GNDR with a 10μF electrolytic capacitor and a 0.1μF ceramic capacitor

Note: All digital inputs should not be left floating

QA07, QU71 : PCF8574

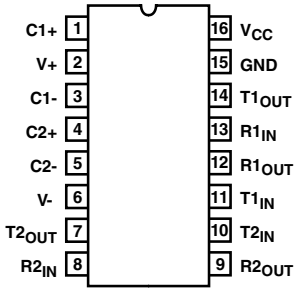
Pin Description

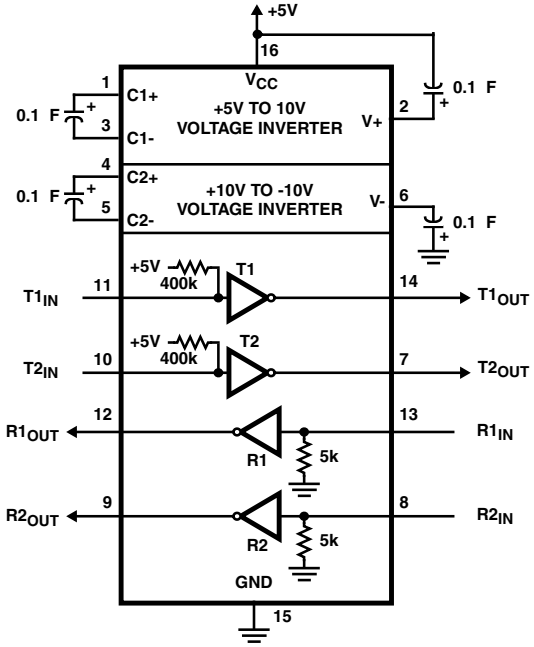
SYMBOL	PIN		DESCRIPTION
	DIP16; SO16	SSOP20	
A0	1	6	address input 0
A1	2	7	address input 1
A2	3	9	address input 2
P0	4	10	quasi-bidirectional I/O 0
P1	5	11	quasi-bidirectional I/O 1
P2	6	12	quasi-bidirectional I/O 2
P3	7	14	quasi-bidirectional I/O 3
V_{SS}	8	15	supply ground
P4	9	16	quasi-bidirectional I/O 4
P5	10	17	quasi-bidirectional I/O 5
P6	11	19	quasi-bidirectional I/O 6
P7	12	20	quasi-bidirectional I/O 7
$\overline{INT}$	13	1	interrupt output (active LOW)
SCL	14	2	serial clock line
SDA	15	4	serial data line
V_{DD}	16	5	supply voltage
n.c.	–	3	not connected
n.c.	–	8	not connected
n.c.	–	13	not connected
n.c.	–	18	not connected

QU50 : HIN202ECB

Pin Assignment

HIN202E (PDIP, SOIC)
TOP VIEW





Pin Descriptions

PIN	FUNCTION
V_{CC}	Power Supply Input 5V 10%, (5V 5% HIN207E).
V+	Internally generated positive supply (+10V nominal).
V-	Internally generated negative supply (-10V nominal).
GND	Ground Lead. Connect to 0V.
C1+	External capacitor (+ terminal) is connected to this lead.
C1-	External capacitor (- terminal) is connected to this lead.
C2+	External capacitor (+ terminal) is connected to this lead.
C2-	External capacitor (- terminal) is connected to this lead.
T_{IN}	Transmitter Inputs. These leads accept TTL/CMOS levels. An internal 400k pull-up resistor to V_{CC} is connected to each lead.
T_{OUT}	Transmitter Outputs. These are RS-232 levels (nominally 10V).
R_{IN}	Receiver Inputs. These inputs accept RS-232 input levels. An internal 5k pull-down resistor to GND is connected to each input.
R_{OUT}	Receiver Outputs. These are TTL/CMOS levels.
$\overline{EN}$	Enable Input. This is an active low input which enables the receiver outputs. With $\overline{EN}$ = 5V, the outputs are placed in a high impedance state.
SD, $\overline{SD}$	Shutdown Input. With SD = 5V (HIN213E $\overline{SD}$ = 0V), the charge pump is disabled, the receiver outputs are in a high impedance state (except R4 and R5 of HIN241E) and the transmitters are shut off.
NC	No Connect. No connections are made to these leads.

QL04 : LC74781

Pin Functions

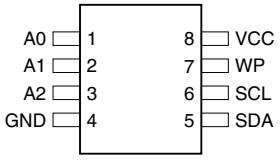
Pin No.	Symbol	Function	Description
1	$V_{SS}1$	Ground	Ground connection (digital system ground)
2	$Xtal_{IN}$	Crystal oscillator connection	Used to connect the crystal oscillator and capacitor used to generate the internal synchronization signal, or to input an external clock (2fsc or 4fsc).
3	$Xtal_{OUT}$		
4	CTRL1	Crystal oscillator input switching	Switches between external clock input mode and crystal oscillator mode. Low = crystal oscillator mode, high = external clock mode
5	BLANK	Blanking output	Outputs the blank signal (the OR of the character and border signals). (Outputs a composite sync signal when MOD0 is high.) Outputs the crystal oscillator clock during reset (when the $\overline{RST}$ pin is low), but can be set up to not output this signal by microprocessor command.
6	OSC_{IN}	LC oscillator connection	Connections for the coil and capacitor that form the oscillator that generates the character output dot clock.
7	OSC_{OUT}		
8	CHARA	Character output	Outputs the character signal. (Functions as the external synchronization signal discrimination signal output pin when MOD0 is high, and outputs the state of the judgment as to whether the external synchronization signal is present or not. Outputs a high level when the synchronization signal is present.) Outputs the dot clock (LC oscillator) during reset, but can be set up to not output this signal by microprocessor command.
9	$\overline{CS}$	Enable input	Serial data input enable input. Serial data input is enabled when low. A pull-up resistor is built in (hysteresis input).
10	SCLK	Clock input	Serial data input clock input. A pull-up resistor is built in (hysteresis input).
11	SIN	Data input	Serial data input. A pull-up resistor is built in (hysteresis input).
12	$V_{DD}2$	Power supply	Composite video signal level adjustment power supply pin (analog system power supply).
13	CV_{OUT}	Video signal output	Composite video signal output
14	NC		Must be either connected to ground or left open.
15	CV_{IN}	Video signal input	Composite video signal input
16	$V_{DD}1$	Power supply	Power supply (+5 V: digital system power supply)
17	SYN_{IN}	Sync separator circuit input	Video signal input for the built-in sync separator circuit (Used for either horizontal synchronization signal or composite sync signal input when the built-in sync separator circuit is not used.)
18	SEP_C	Sync separator circuit bias voltage	Built-in sync separator circuit bias voltage monitor pin
19	SEP_{OUT}	Composite sync signal output	Built-in sync separator circuit composite sync signal output. (When MOD1 is high, outputs a high level during internal synchronization and a low level during external synchronization.) (Outputs the SYN_{IN} input signal when the internal sync separator circuit is not used.)
20	SEP_{IN}	Vertical synchronization signal input	Inputs a vertical synchronization signal created by integrating the SEP_{OUT} pin output signal. An integrator must be attached at the SEP_{OUT} pin. This pin must be tied to $V_{DD}1$ if unused.
21	CTRL2	NTSC/PAL-M switching input	The setting indicated by this pin takes priority in switching between the NTSC, PAL, PAL-M and PAL-N formats. A low level selects NTSC after a reset. The microprocessor command NTSC, PAL, PAL-M, or PAL-N setting is valid. High = PAL-M format.
22	CTRL3	SEP_{IN} input control	Controls whether or not the $\overline{VSYNC}$ signal is input to the SEP_{IN} input. Low = $\overline{VSYNC}$ input, high = $\overline{VSYNC}$ not input.
23	RST	Reset input	System reset input. A pull-up resistor is built in (hysteresis input).
24	$V_{DD}1$	Power supply (+5 V)	Power supply (+5 V: digital system power supply)

QU70 : AT24C04N

Pin Configuration

Pin Name	Function
A0 - A2	Address Inputs
SDA	Serial Data
SCL	Serial Clock Input
WP	Write Protect
NC	No Connect

8-Pin SOIC



QU01 : H8S2633

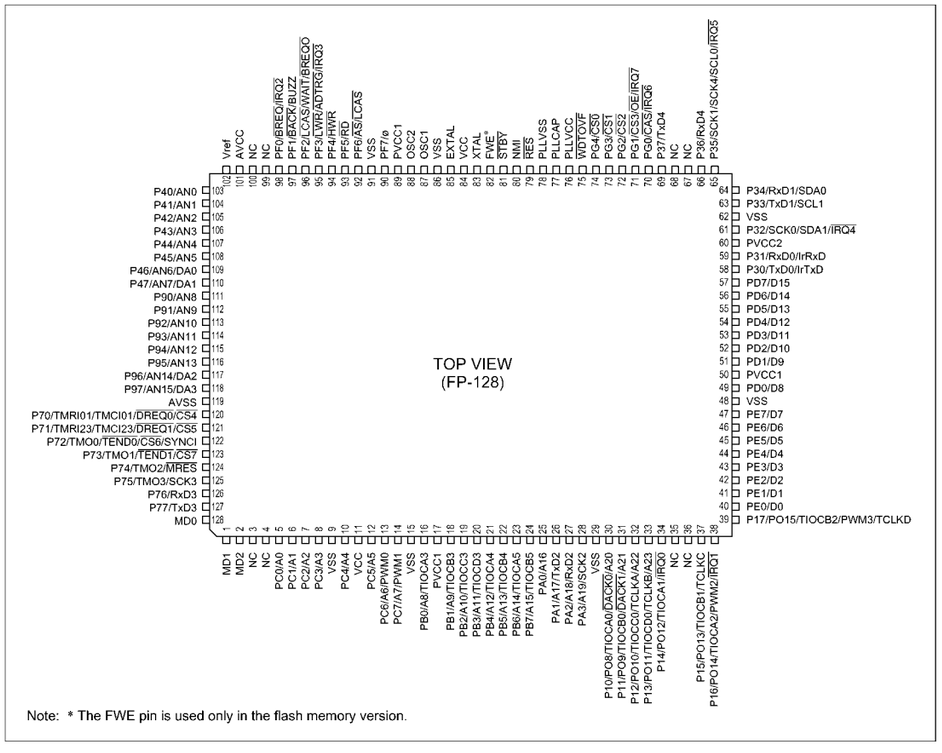
Pin Description

pin	port mode = 7	I/O	use	Name	Port Setting		Note
					Act.	init	
1	**MD1**	I	YES	**MD1**	-	-	Fix H
2	**MD2**	I	YES	**MD2**	-	-	Normal :H, Boot :L
3	NC	-	-		-	-	N.C.
4	NC	-	-		-	-	N.C.
5	**PC0**	I/O	O	**DATAOTU**	-	L	Tuner Pack
6	**PC1**	I/O	O	**CLKTU**	-	L	Tuner Pack
7	**PC2**	I/O	O	**_CETU**	L	L	Tuner Pack
8	**PC3**	I/O	I	**DATAITU**	-		Tuner Pack
9	**VSS**	I	YES	**GND**	-	-	GND
10	**PC4**	I/O	I	**SD**	L		Tuned
11	**VCC**	I	YES	**VCC**	-	-	3.3V
12	**PC5**	I/O	I	**TUST**	H		Stereo Tune/_MONO
13	**PC6**/PWM0	I/O	O	**_CERDS**	L	L	Tuner Pack(RDS)
14	**PC7**/PWM1	I/O	I	**RDSDATA**	-		Tuner Pack(RDS)
15	**VSS**	I	YES	**GND**	-	-	GND
16	PB0/**TIOCA3**	I/O	T_IN	**VSYNC**	H		V-sync Det. & Change OSD
17	**PVCC1**	I	YES	**PVCC1**	-	-	+5V
18	**PB1**/TIOCB3	I/O	O	**_Data(Inverted)**		**H**	P-Exp. (mute, Video), Analog SW, Volume
19	**PB2**/TIOCC3	I/O	O	**_CLK(Inverted)**		**H**	P-Exp.(mute, Video), Analog SW, Volume
20	**PB3**/TIOCD3	I/O	O	**_CEEXP**	L	**H**	P-Exp. (mute, Video),
21	PB4/**TIOCA4**	I/O	T_OUT	**RC_BUS_OUT**		L	RC BUS Output
22	**PB5**/TIOCB4	I/O	O	**KILLIR**	H	L	Kill to IR input signal.
23	PB6/**TIOCA5**	I/O	T_OUT	**MRC5O**		L	RC BUS MULTI Output
24	**PB7**/TIOCB5	I/O	O	**_UMUTE**	L	L	logic for Tr mute
25	**PA0**	I/O	O	**RTS**		L	UART
26	PA1/**TxD2**	I/O	SO	**TXD**		L	UART for Panja, Flash WR **Necessary to Pull Up**
27	PA2/**RxD2**	I/O	SI	**RXD**		-	UART for Panja, Flash WR **Necessary to Pull Up**
28	**PA3**/SCK2	I/O	I	**CTS**	-	-	UART
29	**Vss**	I	-	**GND**	-	-	Ground
30	P10/**TIOCA0**/	I/O	T_OUT	**RC6STAT**	H	L	IR carry out
31	P11/**TIOCB0**/	I/O	T_IN	**RCIN**			IR In for RC-5 $ RC-6
32	**P12**/	I/O	O	**_SMUTE**	L	L	DAC
33	**P13**/	I/O	O	**DFS**	H	L	DAC&ADC
34	P14/**_IRQ0**	I/O	INT	**_PDOWN**	L	-	Power Down Detect
35	NC	-	-	**N.C.**	-	-	
36	NC	-	-	**N.C.**	-	-	
37	**P15**/	I/O	O	**_RSTDAC**	L	L	DAC
38	P16/**_IRQ1**	I/O	INT	**ERF**	H	-	error from DIR

39	**P17**/	I/O	O	**_ADCAL**	L	L	ADC
40	**PE0**	I/O	O	**DATAODIR**		L	DIR
41	**PE1**	I/O	O	**CLKDIR**		L	DIR
42	**PE2**	I/O	O	**_CEDIR**	L	L	DIR
43	**PE3**	I/O	I	**DATAIDIR**		L	DIR
44	**PE4**	I/O	I	**XSTATE**		-	DIR
45	**PE5**	I/O	O	**_XMODE**	L	L	DIR
46	**PE6**	I/O	O	**KILLSCI**	H	L	Kill CLKto Analog Input IC
47	**PE7**	I/O	O	**_STANDBY**	L	L	Standby Power
48	**VSS**	I	-	**GND**	-	-	GND
49	**PD0**	I/O	I/O	**EMADU0**	-	L	exFROM I/F
50	**PVCC1**	I	-	**PVcc**	-	-	+5V
51	**PD1**	I/O	I/O	**EMADU1**	-	L	exFROM I/F
52	**PD2**	I/O	I/O	**EMADU2**		L	exFROM I/F
53	**PD3**	I/O	I/O	**EMADU3**		L	exFROM I/F
54	**PD4**	I/O	I/O	**EMADU4**		L	exFROM I/F
55	**PD5**	I/O	I/O	**EMADU5**		L	exFROM I/F
56	**PD6**	I/O	I/O	**EMADU6**		L	exFROM I/F
57	**PD7**	I/O	I/O	**EMADU7**		L	exFROM I/F
58	**P30**/	I/O	I	**PEAK**	H	-	Peak Indicator
59	**P31**/	I/O	O	**_RSTFL**	L	L	Reset FL Driver
60	**PVCC2**	I	-	**PVcc**	-	-	+5V
61	**P32**/SDA1/ IRQ4/	I/O	Int	**_PROTECT2**	L	-	**Emergency Protection**
62	**VSS**	I	-	**GND**	-	-	GND
63	P33/SCL1/	I/O	O	**BTMODE3**	-	L	exFROM I/F
64	P34/**SDA0**/	I/O	SD	**IICDATA**	-	L	I2C0 for DSP,E2PROM,EXP
65	P35/**SCL0**/ IRQ5/	I/O	SC	**IICCLK**	-	L	I2C0 for DSP,E2PROM,EXP
66	**P36**/RxD4	I/O	O	**_RSTDSP1**	L	L	DSP1
67	NC	-	-	**N.C.**	-	-	N.C.
68	NC	-	-	**N.C.**	-	-	N.C.
69	**P37**/TxD4	I/O	O	**_RSTDSP2**	L	L	DSP1
70	**PG0**/_IRQ6	I/O	O	**BTMODE1**	-	L	exFROM I/F
71	**PG1**/_IRQ7	I/O	O	**BTMODE2**	-	L	exFROM I/F
72	PG2	I/O	O	**_FRWE**	L	L	exFROM I/F
73	PG3	I/O	O	**_FROE**	L	L	exFROM I/F
74	PG4	I/O	O	**FREXTMEM**	-	L	exFROM I/F
75	_WDTOVF	O	No		L	-	WDT OVF Output
76	PLLVCC	I	YES	**PLLVCC**	-	-	DC supply for PLL (3.3V)
77	PLLCAP	I	YES		-	-	For PLL
78	PCCVSS	I	YES	**GND**	-	-	GND for PLL
79	_RES	I	YES		L	-	Reset
80	MNI	I	NO		-	-	Fix H
81	_STBY	I	NO		L	H	Fix H
82	**FWE**	I	YES	**FWE**	H	L	Normal :L, Boot :H
83	XTAL	I	YES		-	-	X'tal (4 or 5M)
84	VCC	I	YES	**Vcc**	-	-	+3.3V
85	EXTAL	I	YES		-	-	X'tal (4 or 5M)
86	VSS	I	-	**GND**	-	-	GND
87	OSC1	I	NO		-	-	+3.3V
88	OSC2	I	NO		-	-	N.C.
89	PVCC1	I	YES	**PVcc**	-	-	+5V
90	**PF7**/ϕ	I/O	I	**CAL**	H	-	Calibration status from ADC
91	VSS	I	YES	**GND**	-	-	GND
92	PF6	I/O	O	**CE_ASW**	L	L	Analog Switch
93	PF5	I/O	O	**CE_VOL**		L	Volume IC
94	PF4	I/O	O	**CE_VOL-M**		L	Volume IC
95	PF3/_**IRQ3**/	I/O	INT	**REQ2**	L	-	DSP2
96	PF2	I/O	O	**_SPKROFF**	L	L	Speaker relay
97	PF1/BUZZ	I/O	O	**_BHIGH**	L	L	Power Amp
98	PF0/_**IRQ2**	I/O	INT	**REQ1**	L	-	DSP1
99	NC	-	-		-	-	N.C.
100	NC	-	-		-	-	N.C.
101	AVCC	I	-	**AVcc**	-	-	+5V
102	Vref	I	-	**Vref**	-	-	+5V

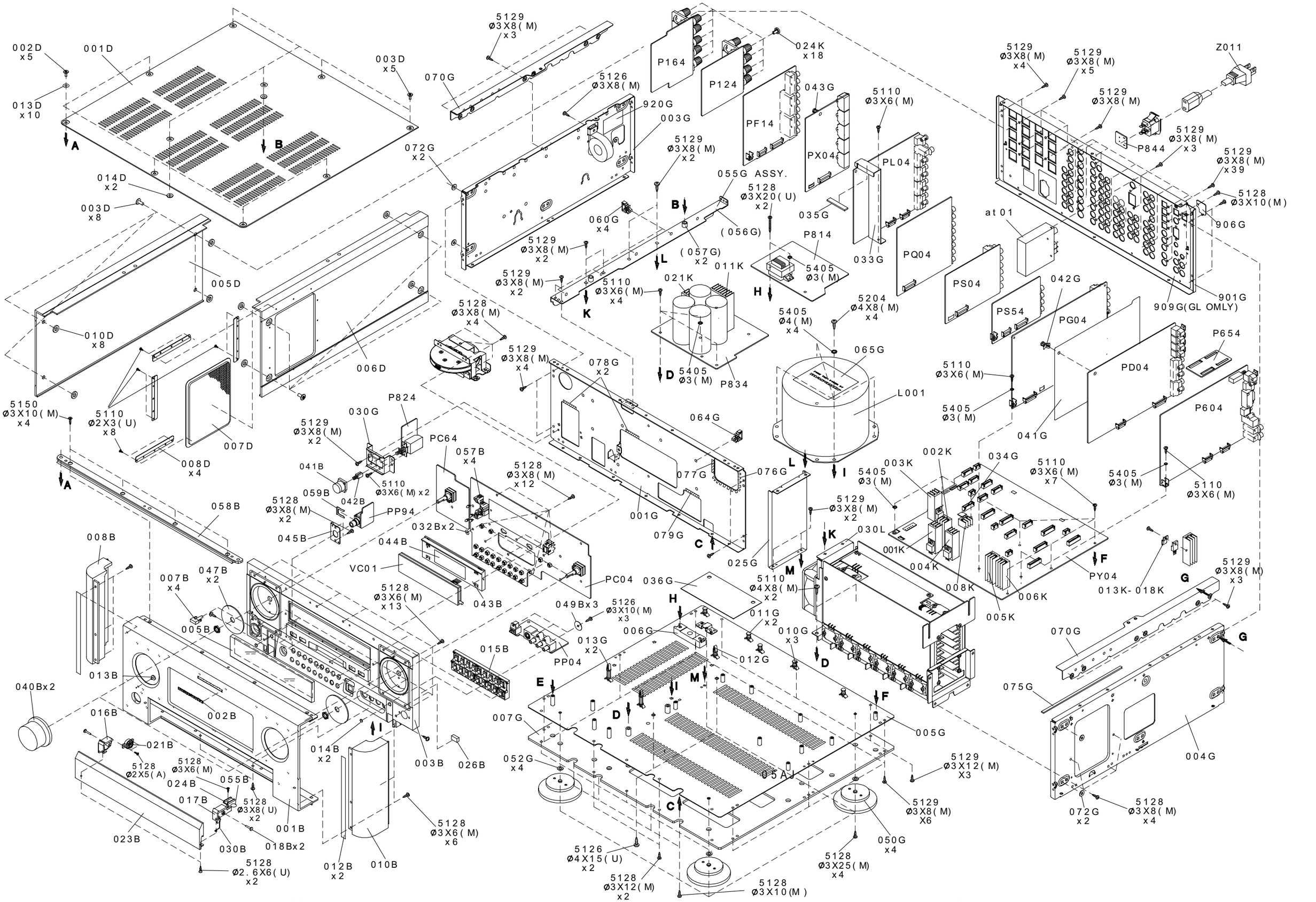
103	P40/**AN0**	I	AD	**KEY0**	-	-	Front Key
104	P41/**AN1**	I	AD	**KEY1**	-	-	Front Key
105	P42/**AN2**	I	AD	**KEY2**	-	-	Front Key
106	P43/**AN3**	I	AD	**KEY3**	-	-	Front Key
107	P44/**AN4**	I	AD	**PROTECT1**	-	-	Protect SPKR
108	P45/**AN5**	I	AD	**MODE1**	-	-	CPU mode
109	P46/**AN6**/DA0	I	AD	**MODE2**	-	-	CPU mode
110	P47/AN7/DA1	I	I	**GYRO-**	-	-	Front Gyro
111	P90/AN8	I	I	**GYRO+**	-	-	Front Gyro
112	P91/AN9	I	I	**VOL+**	-	-	Front Vol. Encoder
113	P92/AN10	I	I	**VOL-**	-	-	Front Vol. Encoder
114	P93/AN11	I	I	**SEL+**	-	-	Front Select. Encoder
115	P94/AN12	I	I	**SEL-**	-	-	Front Select. Encoder
116	P95/AN13	I	I	**_HPDET**	L	-	HP Jack
117	P96/AN14/DA2	I	I	**AVSSDET**	H	-	power circuit
118	P97/AN15/DA3	I	I	**MLTRC5I**	-	-	Multi RC5 IN
119	AVSS	I	-	**GND**	-	-	GND
120	P70/	I/O	O	**_STBY LED**	L	H*	Standby LED On
121	P71/	I/O	O	**_RSFL**	L	L	Front FL driver
122	P72/	I/O	O	**_CEFLD**	L	L	Front FL driver
123	P73/	I/O	O	**_BPOSD**	L	L	Video Circuit
124	P74/	I/O	O	**_CEOSD**	L	H	Video Circuit
125	P75/**SCK3**/	I/O	SC	**SIOCLK**	-	-	Front FL & Video(OSD)
126	P76/**RxD3**	I/O	**O**	**D_A**	-	L	**DIR or _ADC sel**
127	P77/**TxD3**	I/O	SO	**SIODATA**	-	-	Front FL & Video(OSD)
128	**MD0**	I	YES	**MD0**	-	-	+5V

Pin Assignment



Note: * The FWE pin is used only in the flash memory version.

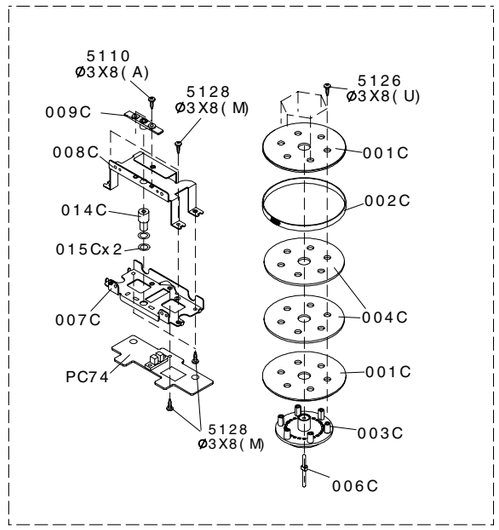
8. EXPLODED VIEW AND PARTS LIST

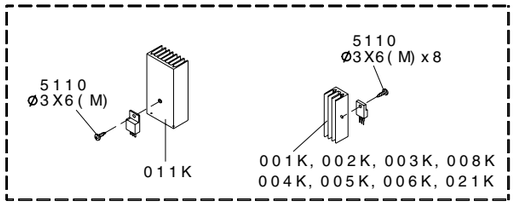


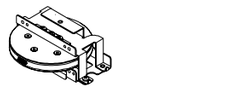
POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
001B	/N1G	05AJ248110	FRONT AL PANEL (GL N)	05AJ248110
001B	/N1S	05AJ248210	FRONT AL PANEL (SI N)	05AJ248210
002B	/N1G	313J251110	BADGE MARANTZ (GL)	313J251110
002B	/N1S	313J251040	BADGE MARANTZ (SI)	313J251040
003B	/N1G	05AJ248150	FRONT MOLD PANEL (GL)	05AJ248150
003B	/N1S	05AJ248250	FRONT MOLD PANEL (SI)	05AJ248250
005B	/N1G	05AJ158110	WINDOW FL (GL/SI)	05AJ158110
005B	/N1S	05AJ158110	WINDOW FL (GL/SI)	05AJ158110
007B	/N1G	300J270120	BUTTON	300J270120
			GYRO SIDE FUNCTION (GL)	
007B	/N1S	300J270220	BUTTON	300J270220
			GYRO SIDE FUNCTION (SI)	
008B	/N1G	322J063110	ESCUTCHEON	322J063110
			CORNER (L SIDE GL)	
008B	/N1S	322J063210	ESCUTCHEON	322J063210
			CORNER (L SIDE SI)	
010B	/N1G	322J063120	ESCUTCHEON	322J063120
			CORNER (R SIDE GL)	
010B	/N1S	322J063220	ESCUTCHEON	322J063220
			CORNER (R SIDE SI)	
013B		230K355040	LENS POWER (CLEAR)	230K355040
015B	/N1G	05AJ270110	BUTTON FUNCTION BLOCK(GL)	05AJ270110
015B	/N1S	05AJ270210	BUTTON FUNCTION BLOCK(SI)	05AJ270210
016B	/N1G	300J002110	ARM DOOR HINGE (L SIDE GL)	300J002110
016B	/N1S	300J002210	ARM DOOR HINGE (L SIDE SI)	300J002210
017B	/N1G	300J002120	ARM DOOR HINGE (R SIDE GL)	300J002120
017B	/N1S	300J002220	ARM DOOR HINGE (R SIDE SI)	300J002220
018B		300J112010	SHAFT DOOR SHAFT	300J112010
021B		391H130030	DAMPER DOOR	391H130030
023B	/N1G	05AJ162110	DOOR PANEL (GL)	05AJ162110
023B	/N1S	05AJ162210	DOOR PANEL (SI)	05AJ162210
026B		271K305500	MAGNET DOOR	271K305500
030B		300J115010	SPRING DOOR ESD	300J115010
040B	/N1G	300J154210	KNOB MASTER (GL)	300J154210
040B	/N1S	300J154310	KNOB MASTER (SI)	300J154310
041B	/N1G	176J270150	BUTTON POWER (GL)	176J270150
041B	/N1S	176J270160	BUTTON POWER (SI)	176J270160
042B		025J125010	JOINT POWER JOINT	025J125010
058B	/N1G	322J063130	ESCUTCHEON	322J063130
			TOP COVER SPACER (GL)	
058B	/N1S	322J063230	ESCUTCHEON	322J063230
			TOP COVER SPACER (SI)	
001C	/N1G	290J063110	ESCUTCHEON	290J063110
			GYRO ESC.(UP & DOWN:GL)	
001C	/N1S	290J063210	ESCUTCHEON	290J063210
			GYRO ESC.(UP & DOWN:SI)	
002C	/N1G	290J066110	RUBBER RING GYRO (GL)	290J066110
002C	/N1S	290J066210	RUBBER RING GYRO (SI)	290J066210
003C		290J273110	FLYWHEEL GYRO WHEEL BASE	290J273110
006C		290J112010	SHAFT GYRO MAIN	290J112010
014C		300J112020	SHAFT	300J112020
			GYRO SUSTAINER (UNDER)	
001D	/N1G	322J257110	LID TOP COVER (GL)	322J257110
001D	/N1S	322J257210	LID TOP COVER (SI)	322J257210
002D	/N	323S010070	SCREW TOP C. 3X12 HGNI FRONT	323S010070
003D	/N	318K010040	SCREW TOP C. REAR 3X5HGNI	318K010040
004D	/N	258S010030	SCREW SIDE 4X10 HGNI	258S010030
005D	/N1G	322J249110	SIDE PANEL(L GL)	322J249110
005D	/N1S	322J249210	SIDE PANEL(L SI)	322J249210
006D	/N1G	322J249120	SIDE PANEL(R GL)	322J249120
006D	/N1S	322J249220	SIDE PANEL(R SI)	322J249220
007D	/N1G	322J003110	PERFORATED SIDE NET (GL)	322J003110
007D	/N1S	322J003210	PERFORATED SIDE NET (SI)	322J003210
001G		05AJ105020	CHASSIS FRONT METAL	05AJ105020
050G	/N1G	163J057410	LEGS (GOLD)	163J057410
050G	/N1S	163J057510	LEGS (SILVER)	163J057510
AT01	/N	AV01203040	TUNER MODULE TFCE1L114A	AV01203040
⚠ L001	/N	TS42002210	MAINS TRANSF. MAIN AC230V	TS42002210
L011		FC50230010	FERRITE CORE TFCK-23-11-14	FC50230010

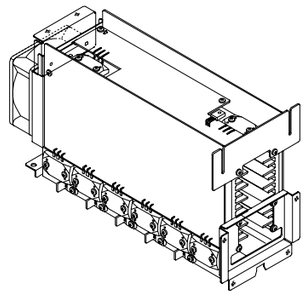
POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
L021	/N	FC50160030	FERRITE CORE TFCK-16-8-13	FC50160030
L031	/N	FC90400010	FERRITE CORE SSC-40-12	FC90400010
⚠ M011		MM01200320	D.C MOTOR COOLING FAN	MM01200320
WC01		nsp	JUMPER LEAD FFC 23P	YU23500530
			JC01(PC04)-JU04(P604)	
WY01	/N	nsp	JUMPER LEAD FFC 15P	YU15200500
			TUNERPACK-JY23(PY04)	
			PACKING	
001T	/N	05AJ851310	USER GUIDE FOR N	05AJ851310
Z004		ZK344J0010	REMOTE CONTROLLER RC3200	ZK344J0010
⚠ Z011	/N	ZC01803080	MAINS CORD	ZC01803080
			2P 10A 250V CLASS2	
			NOT STANDARD SPARE PART	
001S	/N		PACKING CASE	05AJ801010
002S			CUTSION (L SIDE)	300J809010
003S			CUTSION (R SIDE)	300J809020
011S	/N		MASTER CARTON (N)	05AJ805010

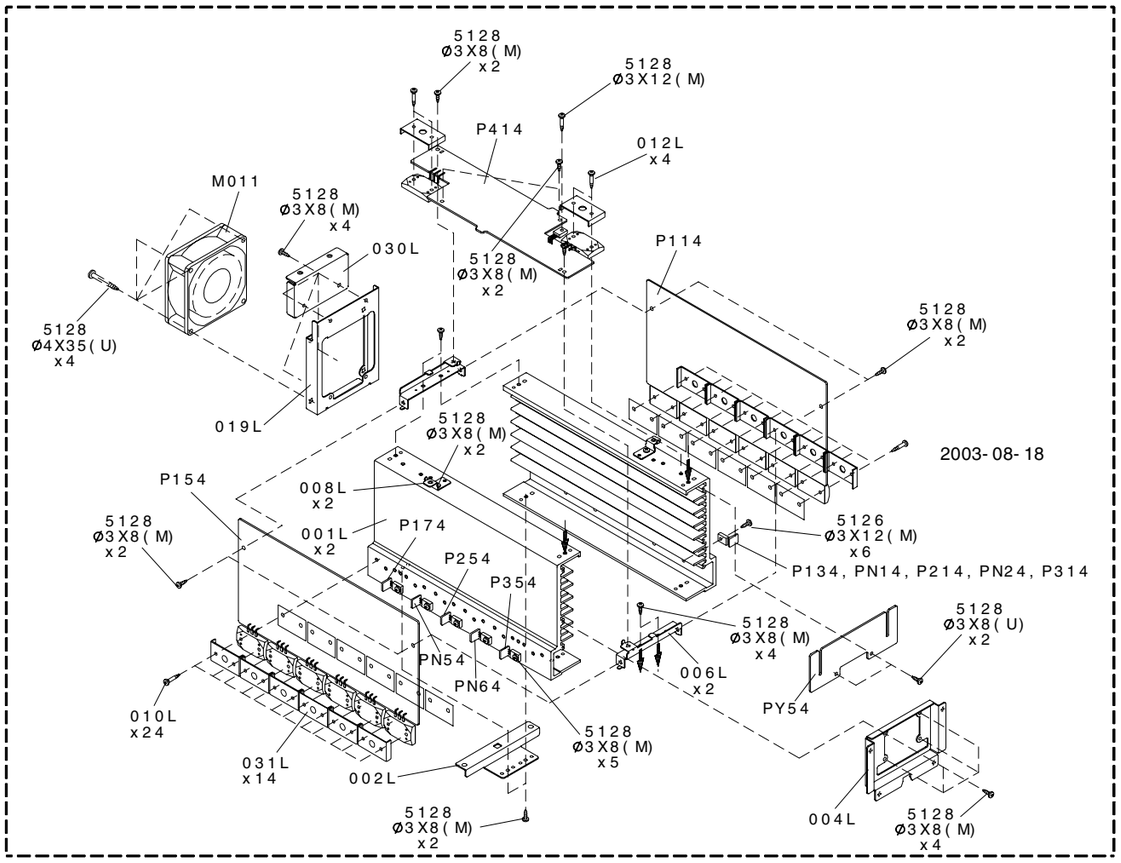
NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.











9. SERVICE PROGRAM

Factory Mode

With the following procedure, the Tracking Point, which is necessary for the adjustment and measurement of the tuner, can be memorized.

1. Turn on the unit, press **DVD**, **TUNER** and **MULTI ROOM** key simultaneously more than three seconds.
2. "FACTORY MODE" will be displayed on the FLD for two seconds and the following frequencies will be stored in the Preset Memory.

Band	Version	P1	P4	P3	P2
FM AUTO [MHz]	/N	90.0	98.0	106.0	87.5

Band	Scan Step	P5	P6	P7	P8	P9	P10	P11	P12	Other
AM [kHz]	9kHz(/N)	603	999	1404	531					No Preset
	MW / LW	603	999	1404	171	207	270	152	531	

Microprocessor (CPU), DSP Version and FLD Segment Check Mode

Turn the unit into the Factory Mode (See above) first. Each time **DISPLAY** key on the remote control unit is pressed or RC-5 code **161500 (Display)** is entered, information shown on the FLD changes in the following order. Software versions of µ-com and DSP can be seen and FLD segments can be checked.

1. Model Name is displayed like "SR-12S1:.
2. Software version of QU01(CPU) is displayed in the following format.

M	A	I	N		V	0	3	0	4	2	6		0	N
						└ Year ┘		└ Month ┘		└ Date ┘			No	Ver.

3. Software Serial Number that is written in the factory is displayed.

S	E	R	I	A	L				X	X	X	X	X	X

4. Software Type Number is displayed

S	O	F	T		T	Y	P	E			X	X

(XX is displayed in Hex)

5. Group Type Number of the code that is written in the DSP's external ROM is displayed.

C	O	D	E	-	G		T	Y	P	E			X	X

6. 1G and 2G of the FLD is lighted each other. (Character part of Dot Matrix stays off.)
7. Dot Matrix part of the FLD lights in the checker pattern. (Other part stays off.)
8. Code ID of the code that is written in the DSP's external ROM is displayed.

C	D		X	X			X	X	X	X	X	X	X	X
			└ Code No. ┘				└ Device ID ┘		└ Code Sig ID ┘		└ Code Type ID ┘		└ Version ┘	

9. Returns to the step 1 and repeats the sequence.
10. Turn off power to quit Service Mode.

Note:

Step4, 5 is to check if CPU software is capable of DSP code. "Software Type No" is to show what "DSP Code Group" CPU is capable of. And vice versa.

Step 8 is to manage the 16 codes for DSP.

* When the unit is once turned into Factory Mode, the unit keeps this mode until the main power is turned off. (Turning into stand-by mode does not make it quit from Factory Mode.) When the unit quits from Factory Mode, Information in the memory is also cleared and the unit returns to the status when it is out from the factory.

Product Reset

To reset the back up memory of the unit into the default status, follow the procedure below.

1. Turn of the unit and press **CD-R/MD** and **AUX1** keys simultaneously more than three seconds.
2. After "DEFAULT" is displayed on FLD, power is turned off once and turned of again, EEPROM is cleared to the default status, µ-com is reset and the unit returns to the normal status. (Software Serial Number will not be cleared.)

Note: When the unit is shipped from the factory, the procedure above must be done to set the unit to initial status after the tests.

10. UPDATE FIRMWARE

Software for CPU and DSP can be updated.
Have *SR12S1CDR update disc.
There are two mode of download, regarding to the target of software as bellow.

Mode 1: Download DSP's software to 4M Flash-ROM.
This mode is to update the software for DSP.
The target devise is 4M –Flash ROM (Q671) on P604.
SR-12S1 need to be set download condition, by three front keys.

Mode 2: Download CPU's software to internal Flash-ROM.
This mode is to update the software for CPU.
The target devise is internal flash ROM of CPU (QU01) on P604.
The unit needs to be set to writing condition, by pushing internal switch from back-panel.

The following items are required for updating.
RS232C Dsub-9 pin cable (female to female/Straight type)
PC (Windows 98, NT, ME, 2000) with RS-232C port.
Upgrade software to CPU.
Upgrade software to DSP.

Use RS232C Dsub-9 pin cable (female to female/Straight type) to connect PC and the unit.
COM port on PC needs to be set by dialog box for each program. COM port can be set from COM1 to COM5.

Download Firmware for DSP (Mode 1)

1. Put the "DSP upgrade" folder into anywhere on your PC's hard disc.
2. Connect PC and the unit with the RS-232C cable.
3. Turn on the unit.
4. Press **TUNER**, **AUX1** and **MULTI ROOM** buttons simultaneously more than 5 seconds to turn the unit into Loading Mode.
5. "LOADING MODE" will be shown on FLD.
6. Launch "UpgradeDSP.exe" on PC.
7. Set the Baud Rate to 38400 then click **Start communication** button. If the connection is made successfully, a dialog box saying "Success to connect" appears and "CONNECTED" is displayed on FLD.
8. Click **Send the DSP codes** button on the dialog box. Progress status of downloading will be shown on PC and "LOADING" is displayed on FLD.
9. If downloading is completed successfully, "COMPLETED" is displayed on FLD. And a dialog box saying "Finished the DSP code transmitting" appears. Click **OK** and then click **CLOSE** to close the application.
10. Turn off the unit.

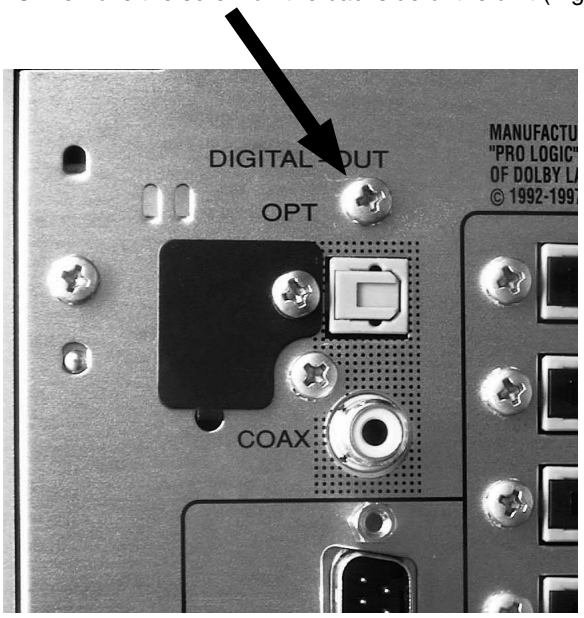
ATTENTION:

The program isn't written in the ROM of QU01 and Q671.

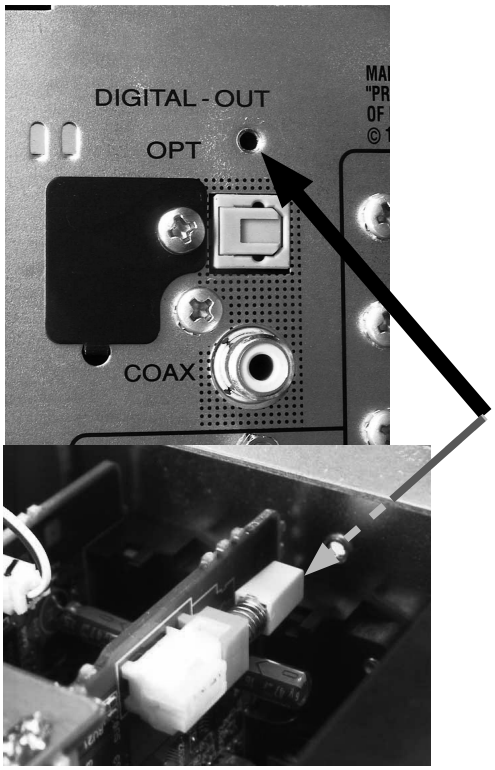
- When QU01 or Q671 was replaced, Writing of software is necessary.
- Write it with the procedure of UPDATE FIRMWARE

Download Firmware for CPU (Mode 2)

1. Put the "CPU upgrade" folder into anywhere on your PC's hard disc.
2. Connect PC and the unit with the RS-232C cable.
3. Remove the screw on the backside of the unit.(Fig.1)



(Fig.1)



(Fig.2)

4. Insert a thin rot to the screw hole and push the switch (SU02) inside to turn on the switch.(Fig.2)
5. Turn on the power of the unit. (Confirm that the stand-by LED lights in green so the unit is in the boot mode.)
6. Launch "H8Download.exe" on PC.
7. Click **other files**… button in the dialog box to specify the file (XXXX.mot) to be upload.
8. Click **Connect** button. If the connection with the H8 µ-com is successfully made, a dialogue box saying "Success to the H8
   micro processor connection" appears. If the connection fails, error message will appear.
9. Click **Send** button to start update.
10. If the firmware is updated successfully, a dialog box saying "Finished the firmware program sending" appears.
11. Click **CLOSE** button to close the application.
12. Disconnect Mains power cord.
13. Turn off the internal switch that has been turned on at step 3. Put on the screw.
14. Turn on the unit.

Firmware Version Check

To check the versions of the firmware, see "Microprocessor (CPU), DSP Version and FLD Segment Check Mode" in "SERVICE PROGRAM" section.

11. POWER AMPLIFIER ADJUSTMENT

Idling Current Alignment

1. Each of the cement resistors (R132, R182…R432) are provided with the three test points. Set a digital Voltage meter to DC voltage input, connect the meter to the test points at both ends among the three test points on the cement resistors.
2. After the setup above, turn on the main switch and heat up the amplifier about 10 minutes.
3. Adjust variable resistors (R123, R173…R423) according to the digital voltmeter readings. The target setting value is 2.15 mV ±0.05 mV (10.8 mA) for each channels.

Settings: Master Volume --- Minimum
Speaker out --- No Load

Step	Power	Channel	Alignment Point	Measurement Point	Alignment Value
1	Power ON after	Front L	R123	R132	----------
		Center	R173	R182	
		Front R	R223	R232	
		Surr. L	R273	R282	
		Surr. R	R373	R382	
		SB L	R323	R332	
		SB R	R423	R432	
2	After XX minutes			R***:0.1ohms x 2	See table for alignment value

Time Table of Idling Current Rise

After Turning ON	Measurement Voltage (R***)	Idling Current
10 min.	2.15 mV	10.8 mA
15 min.	2.13 mV	10.7 mA
20 min.	2.07 mV	10.4 mA
25 min.	2.03 mV	10.2 mA
30 min.	2.00 mV	10.0 mA
40 min.	2.00 mV	10.0 mA

* The Time-Current values in the chart above are from measurement with a unit whose idling current has already adjusted to 10.0mA.

AVSS Function Check

AVSS is the function that switches B voltage automatically depending on the volume of the input signal.

To check whether B voltage is switched or not, follow the procedure below.

1. Check if B voltage is switched to High.

   If maximum power can be output, it is OK. IF wave form is clipped and maximum power is not output, it is NG.

2. Check if B voltage is switched to Low.

   After adjustment of idling current, if power consumption is within 60W 10W under power on, no signal condition. If it is over 90W, it is NG. It is very possible that B voltage stays High.

Note: Once B voltage is switched to High, it is kept High for 1 minutes. So, power consumption can be over 90W with no signal condition for 1 minute if B voltage has been switched to High.

B voltage is Low upon turning on the power (initial status) if there is no signal input.

Cooling Fan Check

There is three speeds for the cooling fan, stop, Low Speed and High Speed, depending on the temperature of the heat sink. Heat sink temperature is monitored with RN62, RN86, thermo sensors for cooling fan. If heat sink temperature becomes higher, resistance of the sensors also becomes higher. To check the cooling fan, connect test resisters to JN62, JN86 where the thermo sensors are connected. There are two ways of checking. Remove either sensor and connect the testresister

	Fan Speed	Test Resister Value	Temperature
1	Stop	0 – 220Ω (0Ω)	Under 60 ˚C
2	Low Speed	560 – 2.2 kΩ (1.0 kΩ)	60 – 80 ˚C
3	High Speed	4.7kΩ - (10 kΩ)	Over 80 ˚C

Overheat Protection Check

If monitored temperature of the heat sink goes overheat, microcomputer shuts down the unit to stand-by mode. Heat sink temperature is monitored with RN47, RN49, thermo sensors for overheat. To check the overheat protection function, connect test resisters to JN47, JN49 where the thermo sensors are connected.

	Function	Test Resister Value	Temperature
1	Normal	0 – 220Ω (0Ω)	Under 110 ˚C
2	Heat Protection (Stand-by)	4.7kΩ - (10 kΩ)	Over 110 ˚C

If overheat is detected, 2nd pin of J501 is led to GND by a transistor. Normally, it is high impedance (open-collector).

12. SYSTEM ERROR

The CPU inside the unit monitors peripheral interfaces and if a trouble is detected the following information is displayed on the FLD.

1. Trouble in DSP1

   If communication with DSP1(Q610) is troubled more than 2 seconds, FLD shows below.

E	R	R	O	R		D	S	P	1		R	O	M	

   * This display stays and sound is muted.

2. Trouble in DSP2

   If communication with DSP2(Q640) is troubled more than 2 seconds, FLD shows below.

E	R	R	O	R		D	S	P	2		R	O	M	

   * This display stays and sound is muted.

3. Trouble in ADC

   If CAL signal from A/D converter(QK51, QK52) keeps high more than 2 seconds, FLD shows below.

E	R	R	O	R		A	D	C						

   * In analog input mode, this display stays and sound is muted.

4. Trouble in EEPROM

   If data from EEPROM(QU70) does not match, FLD shows below.

E	R	R	O	R		E	2	P						

   * After displaying it, Back-up Data is reset to default.

5. Trouble in EEPROM I/F

   If communication with EEPROM(QU70) is troubled more than 2 seconds, FLD shows below.

E	R	R	O	R		E	2	P		I	F			

6. Trouble in 5V Supply

   If 5V supply to P604(DSP/CPU PCB) is troubled, FLD shows below.

E	R	R	O	R		P	O	W	5					

7. Trouble in Power Amplifier (1)

If DC offset, over-current, over-heat, trouble in main transformer is detected, FLD shows below.

P	R	O	T	E	C	T								

* If a trouble is detected upon power on, CPU turns off the speaker relay. And if the trouble is not recovered within 2 seconds, CPU turns the unit into stand-by. If DC offset or over-current is detected on power on status, the speaker relay is turned off, and if over-heat, trouble in main transformer is detected, the unit turns into stand-by immediately.

8. Trouble in Power Amplifier (2)

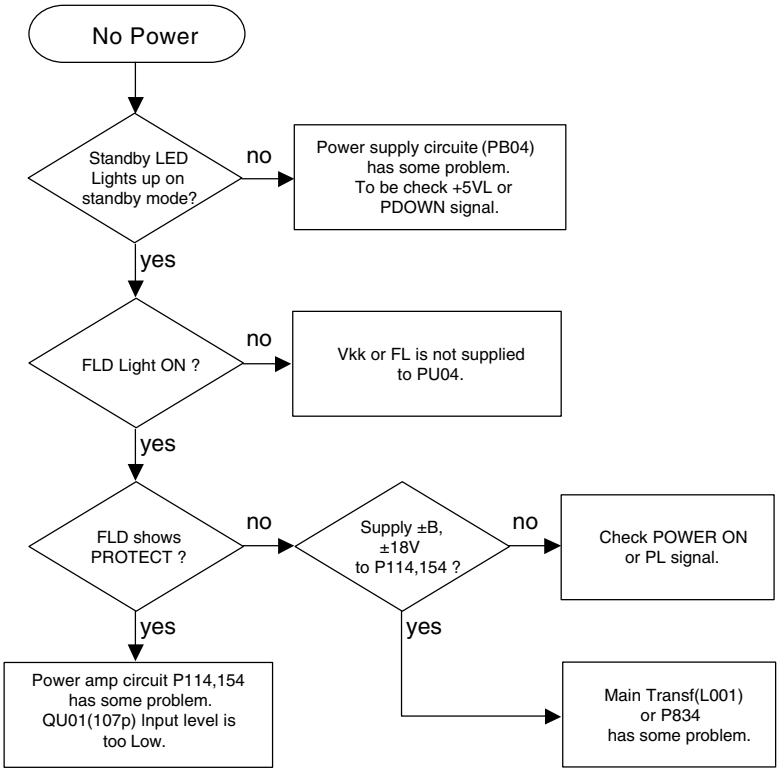
If a trouble in ±B power supply or ±18V power supply is detected, the unit behaves like the followings.

1) If a trouble is detected upon power on and the trouble is not recovered within 2 seconds, the unit turns into stand-by.

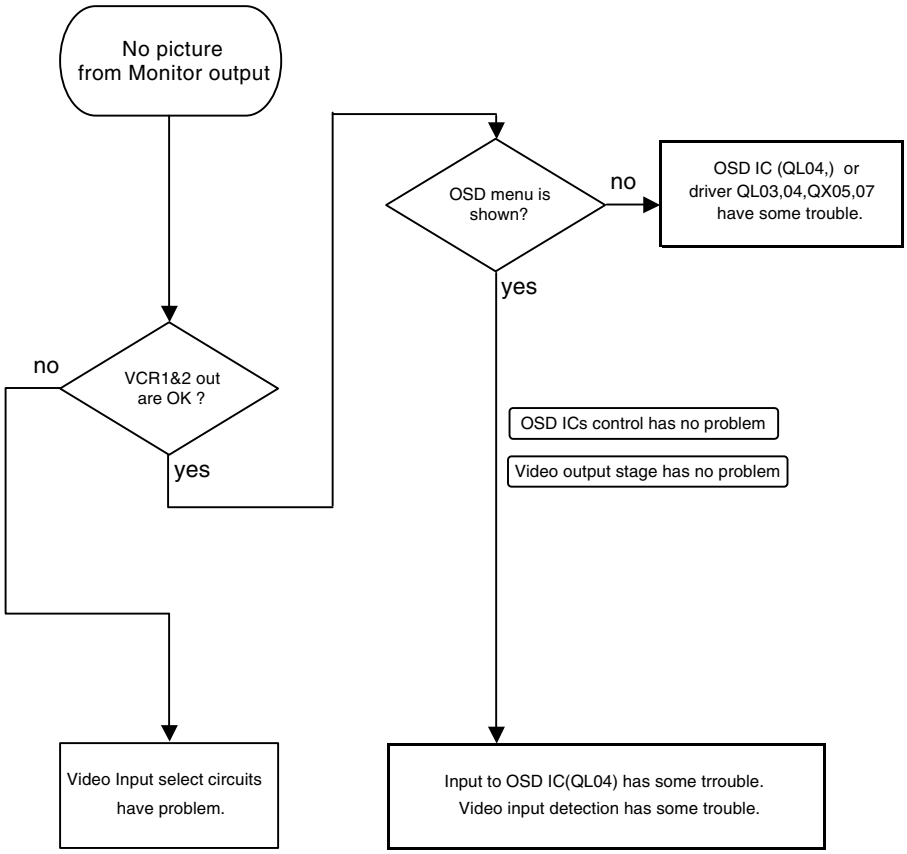
2) If a trouble is detected in power on status, the unit turns into stand-by immediately.

13. TROUBLE SHOOTING

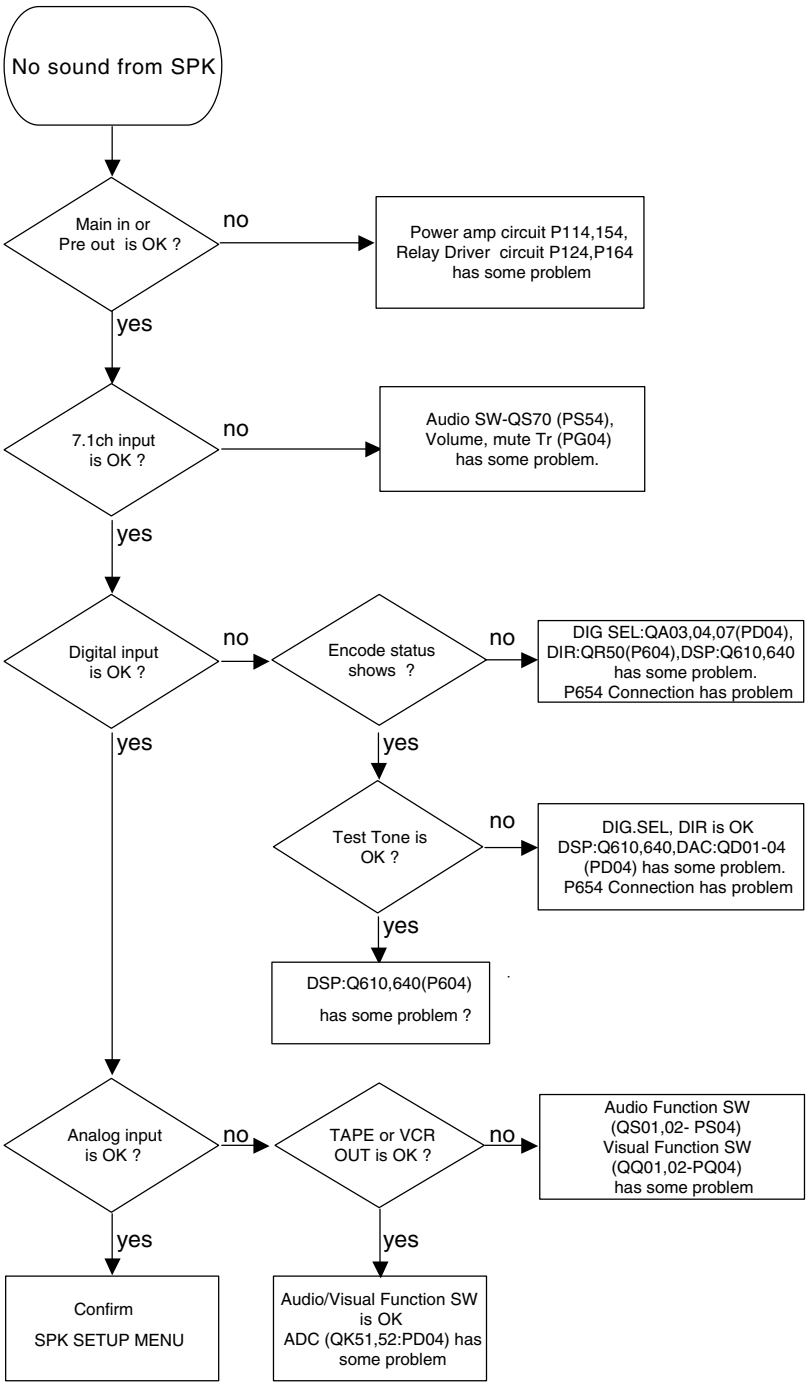
No Power


No Power
Standby LED Lights up on standby mode?
no
Power supply circuite (PB04) has some problem. To be check +5VL or PDOWN signal.
yes
FLD Light ON ?
no
Vkk or FL is not supplied to PU04.
yes
FLD shows PROTECT ?
no
Supply ±B, ±18V to P114,154 ?
no
Check POWER ON or PL signal.
yes
yes
Power amp circuit P114,154 has some problem. QU01(107p) Input level is too Low.
Main Transf(L001) or P834 has some problem.

No Picture


No picture from Monitor output
OSD menu is shown?
no
OSD IC (QL04,) or driver QL03,04,QX05,07 have some trouble.
yes
no
VCR1&2 out are OK ?
yes
OSD ICs control has no problem
Video output stage has no problem
Video Input select circuits have problem.
Input to OSD IC(QL04) has some trrouble.
Video input detection has some trouble.

No Sound


No sound from SPK
Main in or Pre out is OK ?
no
Power amp circuit P114,154, Relay Driver circuit P124,P164 has some problem
yes
7.1ch input is OK ?
no
Audio SW-QS70 (PS54), Volume, mute Tr (PG04) has some problem.
yes
Digital input is OK ?
no
Encode status shows ?
no
DIG SEL:QA03,04,07(PD04), DIR:QR50(P604),DSP:Q610,640 has some problem. P654 Connection has problem
yes
yes
Test Tone is OK ?
no
DIG.SEL, DIR is OK DSP:Q610,640,DAC:QD01-04 (PD04) has some problem. P654 Connection has problem
yes
DSP:Q610,640(P604) has some problem ?
Analog input is OK ?
no
TAPE or VCR OUT is OK ?
no
Audio Function SW (QS01,02- PS04) Visual Function SW (QQ01,02-PQ04) has some problem
yes
yes
Confirm SPK SETUP MENU
Audio/Visual Function SW is OK ADC (QK51,52:PD04) has some problem

14. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R✻✻✻: 1) GD05×××140, Carbon film fixed resistor, ±5% 1/4W
R✻✻✻: 2) GD05×××160, Carbon film fixed resistor, ±5% 1/6W
① ——— Resistance value

Examples ;
① Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C✻✻✻: CERAMIC CAP.
3) DD1××××370, Ceramic capacitor
② ③ Disc type
Temp.coeff.P350 ～N1000, 50V
③ ——— Capacity value
② ——— Tolerance

Examples ;
② Tolerance (Capacity deviation)
±0.25 pF 0
±0.5 pF 1
±5% 5
✻ Tolerance of COMMON PARTS handled here are as follows :
0.5 pF～ 5 pF .... ±0.25 pF
6 pF～ 10 pF .... ±0.5 pF
12 pF～ 560 pF .... ±5%
③ Capacity value

0.5 pF 005	3 pF 030	100 pF 101	
1 pF 010	10 pF 100	220 pF 221	
1.5 pF 015	47 pF 470	560 pF 561	

C✻✻✻ : CERAMIC CAP.
4) DK16×××300, High dielectric constant ceramic capacitor
④ Disc type
Temp.chara. 2B4, 50V
④ ——— Capacity value

Examples ;
④ Capacity value

100 pF 101	1000 pF 102	10000 pF 103
470 pF 471	2200 pF 222	

C✻✻✻ : 5) ELECTROLY CAP. (⏚), 6) FILM CAP. (⏦)
5) EA×××××××10, Electrolytic capacitor
⑤ ⑥ One-way lead type, Tolerance ±20%
⑥ ——— Working voltage
⑤ ——— Capacity value

Examples ;
⑤ Capacity value

0.1 µF 104	4.7 µF 475	100 µF 107
0.33 µF 334	10 µF 106	330 µF 337
1 µF 105	22 µF 226	1100 µF 118
		2200 µF 228

⑥ Working voltage

6.3V 006	25V 025
10V 010	35V 035
16V 016	50V 050

6) DF15××× 350 → Plastic film capacitor
DF15××× 310 → One-way type, Mylar ±5% 50V
DF16××× 310 → Plastic film capacitor
⑦ One-way type, Mylar ±10% 50V
⑦ ——— Capacity value

Examples ;
⑦ Capacity value

0.001 µF (1000 pF) 102	0.1 µF 104
0.0018 µF 182	0.56 µF 564
0.01 µF 103	1 µF 105
0.015 µF 153	

NOTE : 1) The above CODES (R✻✻✻ , R✻✻✻ , C✻✻✻ , C✻✻✻ and C ✻✻✻) are omitted on the schematic diagram in some case.
2) On the occasion, be confirmed the common parts on the parts list.
3) Refer to "Common Parts List" for the other common parts (**RI05**, **DD4**, **DK4**).

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;

1. KOA Corporation

Part No. (MJI)	Type No. (KOA)	Description
NH05×××140	→ RF25S××××ΩJ	(±5% 1/4W)
NH05×××120	→ RF50S××××ΩJ	(±5% 1/2W)
NH85×××110	→ RF73B2A××××ΩJ	(±5% 1/10W)
NH95×××140	→ RF73B2E××××ΩJ	(±5% 1/4W)

✻ Resistance value — Resistance value (0.1 Ω – 10 kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No. (MJI)	Type No. (MEC)	Description
NF05×××140	→ ERD-2FCJ×××	(±5% 1/4W)
RF05×××140		
NF02×××140	→ ERD-2FCG×××	(±2% 1/4W)
RF02×××140		

✻Resistance value — ✻Resistance value

Examples ;
✻ Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

ABBREVIATION AND MARKS

ANT.	: ANTENNA	BATT.	: BATTERY
CAP.	: CAPACITOR	CER.	: CERAMIC
CONN.	: CONNECTING	DIG.	: DIGITAL
HP	: HEADPHONE	MIC.	: MICROPHONE
µ-PRO	: MICROPROCESSOR	REC.	: RECORDING
RES.	: RESISTOR	SPK	: SPEAKER
SW	: SWITCH	TRANSF.	: TRANSFORMER
TRIM.	: TRIMMING	TRS.	: TRANSISTOR
VAR.	: VARIABLE	X'TAL	: CRYSTAL

NOTE ON FUSE :

Regarding to all parts of parts code **FS20**xxx**2**xx, replace only with Wickmann-Werke GmbH, Type 372 non glass type fuse.

NOTE ON SAFETY :

Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ⚠ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意：

⚠がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

010728MIT

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			P114-POWER AMP FL FR SBL CUIT BOARD	
			P114-CAPACITORS	
C101		nsp	ELECT. 22µF M 25V ARS	OA22602540
C102		OF15331540	FILM 330pF TP 100V PP APSV	OF15331540
C103		nsp	ELECT. 100µF M 50V RA-2	OA10705020
C104		OF15122540	FILM 1200pF TP 100V PP APSV	OF15122540
C105		nsp	ELECT. 10µF M 50V RA-2	OA10605020
C106		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C107		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C148		nsp	ELECT. 100µF M 25V RA-2	OA10702520
C149		nsp	ELECT. 100µF M 25V RA-2	OA10702520
C201		nsp	ELECT. 22µF M 25V ARS	OA22602540
C202		OF15331540	FILM 330pF TP 100V PP APSV	OF15331540
C203		nsp	ELECT. 100µF M 50V RA-2	OA10705020
C204		OF15122540	FILM 1200pF TP 100V PP APSV	OF15122540
C205		nsp	ELECT. 10µF M 50V RA-2	OA10605020
C206		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C207		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C301		nsp	ELECT. 22µF M 25V ARS	OA22602540
C302		OF15331540	FILM 330pF TP 100V PP APSV	OF15331540
C303		nsp	ELECT. 100µF M 50V RA-2	OA10705020
C304		OF15122540	FILM 1200pF TP 100V PP APSV	OF15122540
C305		nsp	ELECT. 10µF M 50V RA-2	OA10605020
C306		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C307		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C348		nsp	ELECT. 100µF M 25V RA-2	OA10702520
C349		nsp	ELECT. 100µF M 25V RA-2	OA10702520
C401		nsp	ELECT. 22µF M 25V ARS	OA22602540
C402		OF15331540	FILM 330pF TP 100V PP APSV	OF15331540
C403		nsp	ELECT. 100µF M 50V RA-2	OA10705020
C404		OF15122540	FILM 1200pF TP 100V PP APSV	OF15122540
C406		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C407		nsp	ELECT. 220µF M 100V RA-2	OA22710020
CN14		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CN18		nsp	ELECT. 1µF M 50V RA-2	OA10505020
CN66		nsp	ELECT. 1µF M 50V RA-2	OA10505020
			P114-CAPACITORS(COMMON)	
C***			PLASTIC FILM CAPACITOR	
			±5% 50V : C108 C208 C308	
			P114-RESISTORS	
R123		RA01020760	TRIM. 1kΩ VERTICAL	RA01020760
⚠ R132		BW10000050	RES. COMPO.	BW10000050
			0.1Ω K 5W X2 RGC-55	
R223		RA01020760	TRIM. 1kΩ VERTICAL	RA01020760
⚠ R232		BW10000050	RES. COMPO.	BW10000050
			0.1Ω K 5W X2 RGC-55	
R323		RA01020760	TRIM. 1kΩ VERTICAL	RA01020760
⚠ R332		BW10000050	RES. COMPO.	BW10000050
			0.1Ω K 5W X2 RGC-55	
			P114- RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : R101 R102 R104	
			R105 R110 R111 R112 R115	
			R116 R119 R120 R121 R122	
			R133 R134 R135 R136 R137	
			R139 R201 R202 R204 R205	
			R210 R211 R212 R215 R216	
			R219 R220 R221 R222 R233	
			R234 R235 R236 R237 R239	
			R301 R302 R304 R305 R310	
			R311 R312 R315 R316 R319	
			R320 R321 R322 R333 R334	
			R335 R336 R337 R339 R401	
			R402 R404 R405 R410 R411	
			R412 R415 R416 R419 R420	
			R542 R543 R544 RN40 RN41	

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			P114-SEMICONDUCTORS	
D101 ∫ D104		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D105		HD30821000	ZENER DIODE 8.2V	HD30821000
D106		HD30821000	ZENER DIODE 8.2V	HD30821000
D107		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D108		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D109		HD30431000	ZENER DIODE 4.3V	HD30431000
D201				
D203		nsp	DIODE	HD20002000
D204			1SS176 MA165 1SS254 30V 0.1A	
D205		HD30821000	ZENER DIODE 8.2V	HD30821000
D206		HD30821000	ZENER DIODE 8.2V	HD30821000
D207		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D208		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D209		HD30431000	ZENER DIODE 4.3V	HD30431000
D301				
D303		nsp	DIODE	HD20002000
D304			1SS176 MA165 1SS254 30V 0.1A	
D305		HD30821000	ZENER DIODE 8.2V	HD30821000
D306		HD30821000	ZENER DIODE 8.2V	HD30821000
D307		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D308		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D309		HD30431000	ZENER DIODE 4.3V	HD30431000
D401		nsp	DIODE	HD20002000
			1SS176 MA165 1SS254 30V 0.1A	
D402		nsp	DIODE	HD20002000
			1SS176 MA165 1SS254 30V 0.1A	
⚠ K102		HK121619F0	TRS. KIT 2SA1216/2SC2922 OPY	HK121619F0
			LF203 PAIR FOR Q116 AND Q117	
⚠ Q116		nsp	TRS. C2922 OPY 17A 200W LF203	nsp
			PAIR WITH Q117 AS K102.	
⚠ Q117		nsp	TRS. A1216 OPY 17A 200W LF203	nsp
			PAIR WITH Q116 AS K102.	
⚠ K103		HK185919C0	TRS. KIT 2SA1859/2SC4883 O/O	HK185919C0
			OR Y/Y PAIR FOR Q112 AND Q113	
⚠ Q112		nsp	TRS. 2SC4883 O OR Y	nsp
			PAIR WITH Q113 AS K103.	
⚠ Q113		nsp	TRS. 2SA1859 O OR Y	nsp
			PAIR WITH Q112 AS K103.	
⚠ K202		HK121619F0	TRS. KIT 2SA1216/2SC2922 OPY	HK121619F0
			LF203 PAIR FOR Q216 AND Q217	
⚠ Q216		nsp	TRS. C2922 OPY 17A 200W LF203	nsp
			PAIR WITH Q217 AS K202.	
⚠ Q217		nsp	TRS. A1216 OPY 17A 200W LF203	nsp
			PAIR WITH Q216 AS K202.	
⚠ K203		HK185919C0	TRS. KIT 2SA1859/2SC4883 O/O	HK185919C0
			OR Y/Y PAIR FOR Q212 AND Q213	
⚠ Q212		nsp	TRS. 2SC4883 O OR Y	nsp
			PAIR WITH Q213 AS K203.	
⚠ Q213		nsp	TRS. 2SA1859 O OR Y	nsp
			PAIR WITH Q212 AS K203	
⚠ K302		HK121619F0	TRS. KIT 2SA1216/2SC2922 OPY	HK121619F0
			LF203 PAIR FOR Q316 AND Q317	
⚠ Q316		nsp	TRS. C2922 OPY 17A 200W LF203	nsp
			PAIR WITH Q317 AS K302	
⚠ Q317		nsp	TRS. A1216 OPY 17A 200W LF203	nsp
			PAIR WITH Q316 AS K302	
⚠ K303		HK185919C0	TRS. KIT 2SA1859/2SC4883 O/O	HK185919C0
			OR Y/Y PAIR FOR Q312 AND Q313	
⚠ Q312		nsp	TRS. 2SC4883 O OR Y	nsp
			PAIR WITH Q313 AS K303	
⚠ Q313		nsp	TRS. 2SA1859 O OR Y	nsp
			PAIR WITH Q312 AS K303	
Q101		HC10053090	IC NJM-2068-DD	HC10053090
Q103		HT600111B0	TRS. KTA1267 PNP (Y)	HT600111B0
Q104		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
Q105		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
Q106		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q107		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q108		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q109		HT600131B0	TRS. KTA1024 PNP (Y)	HT600131B0
Q110		HT800941B0	TRS. KTC3206 NPN (Y)	HT800941B0
⚠ Q114		HT900291B0	TRS. KTD600K NPN (Y)	HT900291B0
⚠ Q115		HT700241B0	TRS. KTB631K PNP (Y)	HT700241B0
Q118		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q203		HT600111B0	TRS. KTA1267 PNP (Y)	HT600111B0
Q204		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
Q205		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q206		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q207		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q208		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q209		HT600131B0	TRS. KTA1024 PNP (Y)	HT600131B0
Q210		HT800941B0	TRS. KTC3206 NPN (Y)	HT800941B0
⚠ Q214		HT900291B0	TRS. KTD600K NPN (Y)	HT900291B0
⚠ Q215		HT700241B0	TRS. KTB631K PNP (Y)	HT700241B0
Q218		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q301		HC10053090	IC NJM-2068-DD	HC10053090
Q303		HT600111B0	TRS. KTA1267 PNP (Y)	HT600111B0
Q304		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
Q305		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q306		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q307		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q308		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q309		HT600131B0	TRS. KTA1024 PNP (Y)	HT600131B0
Q310		HT800941B0	TRS. KTC3206 NPN (Y)	HT800941B0
⚠ Q314		HT900291B0	TRS. KTD600K NPN (Y)	HT900291B0
⚠ Q315		HT700241B0	TRS. KTB631K PNP (Y)	HT700241B0
Q318		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q403		HT600111B0	TRS. KTA1267 PNP (Y)	HT600111B0
Q404		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
Q405		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q406		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q407		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q408		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q409		HT600131B0	TRS. KTA1024 PNP (Y)	HT600131B0
Q410		HT800941B0	TRS. KTC3206 NPN (Y)	HT800941B0
QN08		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
			P124-SPKOUTS FRONT SURRBACK HEAD CUIT BOARD	
			P124-CAPACITORS(COMMON)	
C***			PLASTIC FILM CAPACITOR ±5% 50V : C109 C110 C209 C210 C309 C310 C409 C410	
C***			HIGH DIELECTRIC CONSTANT CER.CAPACITOR ±10% 50V : C119 C219 C319 C419	
			P124- RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : RN27-RN32	
			P124-SEMICONDUCTORS	
DN05		nsp	DIODE 1D3 1A/200V	HD20002710
DN07		nsp	DIODE 1D3 1A/200V	HD20002710
DP91		nsp	DIODE 1D3 1A/200V	HD20002710
QN04		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
QN05		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
QN06		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
			P124-MISCELLANEOUS	
J149		YT01040890	TERMINAL SPKROUT FL FR	YT01040890
J349		YT01040890	TERMINAL SPKROUT SBL SBR	YT01040890
⚠ LN01		LY20240310	RELAY VB 24MBU-510 5A/240VAC	LY20240310
⚠ LN03		LY20240310	RELAY VB 24MBU-510 5A/240VAC	LY20240310

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
LP91		LY20240490	RELAY HP OUT RELAY	LY20240490
			P134-Q111 CUIT BOARD	
Q111		HT334191Y0	TRS. 2SC3419 Y 40V 0.8A PC=1.2W (5W)	HT334191Y0
			P154-POWER AMP C SL SR AVSS SENS CUIT BOARD	
			P154-CAPACITORS	
C151		nsp	ELECT. 22µF M 25V ARS	OA22602540
C152		OF15331540	FILM 330pF TP 100V PP APSV	OF15331540
C153		nsp	ELECT. 100µF M 50V RA-2	OA10705020
C154		OF15122540	FILM 1200pF TP 100V PP APSV	OF15122540
C155		nsp	ELECT. 10µF M 50V RA-2	OA10605020
C156		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C157		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C198		nsp	ELECT. 100µF M 25V RA-2	OA10702520
C199		nsp	ELECT. 100µF M 25V RA-2	OA10702520
C251		nsp	ELECT. 22µF M 25V ARS	OA22602540
C252		OF15331540	FILM 330pF TP 100V PP APSV	OF15331540
C253		nsp	ELECT. 100µF M 50V RA-2	OA10705020
C254		OF15122540	FILM 1200pF TP 100V PP APSV	OF15122540
C255		nsp	ELECT. 10µF M 50V RA-2	OA10605020
C256		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C257		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C351		nsp	ELECT. 22µF M 25V ARS	OA22602540
C352		OF15331540	FILM 330pF TP 100V PP APSV	OF15331540
C353		nsp	ELECT. 100µF M 50V RA-2	OA10705020
C354		OF15122540	FILM 1200pF TP 100V PP APSV	OF15122540
C355		nsp	ELECT. 10µF M 50V RA-2	OA10605020
C356		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C357		nsp	ELECT. 220µF M 100V RA-2	OA22710020
C389		nsp	ELECT. 100µF M 25V RA-2	OA10702520
C399		nsp	ELECT. 100µF M 25V RA-2	OA10702520
C508		nsp	ELECT. 1µF M 50V RA-2	OA10505020
C509		nsp	ELECT. 100µF M 25V RA-2	OA10702520
C510		nsp	ELECT. 100µF M 25V RA-2	OA10702520
CN01		nsp	ELECT. 100µF M 50V RA-2	OA10705020
CN02		nsp	CER. 0.01µF Z 50V	DK18103310
CN03		nsp	ELECT. 0.47µF M 50V RA-2	OA47405020
CN04		nsp	ELECT. 0.47µF M 50V RA-2	OA47405020
CN05		nsp	ELECT. 1µF M 50V RA-2	OA10505020
CN06		nsp	CER. 0.01µF Z 50V	DK18103310
CN15		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CN17		nsp	CER. 0.01µF Z 50V	DK18103310
CN61		nsp	ELECT. 100µF M 25V RA-2	OA10702520
CN62		nsp	CER. 0.01µF Z 50V	DK18103310
CN63		nsp	ELECT. 1µF M 50V RA-2	OA10505020
CN64		nsp	ELECT. 1µF M 50V RA-2	OA10505020
CN65		nsp	ELECT. 1µF M 50V RA-2	OA10505020
			P154-CAPACITORS(COMMON)	
C***			PLASTIC FILM CAPACITOR ±5% 50V : C158 C258 C358	
			P154-RESISTORS	
R173		RA01020760	TRIM. 1K VERTICAL	RA01020760
⚠ R182		BW10000050	RES. COMPO. 0.1Ω K 5W X2 RGC-55	BW10000050
R273		RA01020760	TRIM. 1K VERTICAL	RA01020760
⚠ R282		BW10000050	RES. COMPO. 0.1Ω 5W X2 RGC-55	BW10000050
R373		RA01020760	TRIM. 1kΩ VERTICAL	RA01020760
⚠ R382		BW10000050	RES. COMPO. 0.1Ω K 5W X2 RGC-55	BW10000050
			P154- RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : R151 R152 R154	

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			R155 R160-R162 R165 R166	
			R169-R172 R183-R187 R189	
			R251 R252 R254 R255 R260	
			R261 R262 R265 R266 R269	
			R270 R271 R272 R283-R287	
			R289 R351 R352 R354 R355	
			R360 R361 R362 R365 R366	
			R369-R372 R383-R387 R389	
			R501-R509 R517 R530-R535	
			R540 R541 R545 R549	
			RN01-RN16 RN18-RN23 RN42	
			RN43 RN61 RN63-RN71 RN76	
			RN77 RN80 RN84 RN85	
			P154-SEMICONDUCTORS	
D151				
∫		nsp	DIODE	HD20002000
D154			1SS176 MA165 1SS254 30V 0.1A	
D155		HD30821000	ZENER DIODE 8.2V	HD30821000
D156		HD30821000	ZENER DIODE 8.2V	HD30821000
D157		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D158		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D159		HD30431000	ZENER DIODE 4.3V	HD30431000
D251				
∫		nsp	DIODE	HD20002000
D254			1SS176 MA165 1SS254 30V 0.1A	
D255		HD30821000	ZENER DIODE 8.2V	HD30821000
D256		HD30821000	ZENER DIODE 8.2V	HD30821000
D257		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D258		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D259		HD30431000	ZENER DIODE 4.3V	HD30431000
D351				
∫		nsp	DIODE	HD20002000
D354			1SS176 MA165 1SS254 30V 0.1A	
D355		HD30821000	ZENER DIODE 8.2V	HD30821000
D356		HD30821000	ZENER DIODE 8.2V	HD30821000
D357		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D358		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D359		HD30431000	ZENER DIODE 4.3V	HD30431000
D511				
∫		nsp	DIODE	HD20002000
D517			1SS176 MA165 1SS254 30V 0.1A	
DN61		HD30821000	ZENER DIODE 8.2V	HD30821000
DN62		HD30471000	ZENER DIODE 4.7V	HD30471000
⚠ K152		HK121619F0	TRS. KIT 2SA1216/2SC2922 OPY	HK121619F0
			LF203 PAIR FOR Q166 AND Q167	
⚠ Q166		nsp	TRS. 2SC2922 OPY 17A 200W	nsp
			LF203 PAIR WITH Q167 AS K152	
⚠ Q167		nsp	TRS. 2SA1216 OPY 17A 200W	nsp
			LF203 PAIR WITH Q166 AS K152	
⚠ K153		HK185919C0	TRS. KIT 2SA1859/2SC4883 O/O	HK185919C0
			OR Y/Y PAIR FOR Q162 AND Q163	
⚠ Q162		nsp	TRS. 2SC4883 O OR Y	nsp
			PAIR WITH Q163 AS K153	
⚠ Q163		nsp	TRS. 2SA1859 O OR Y	nsp
			PAIR WITH Q162 AS K153	
⚠ K252		HK121619F0	TRS. KIT 2SA1216/2SC2922 OPY	HK121619F0
			LF203 PAIR FOR Q266 AND Q267	
⚠ Q266		nsp	TRS. 2SC2922 OPY 17A 200W	nsp
			LF203 PAIR WITH Q267 AS K252	
⚠ Q267		nsp	TRS. 2SA1216 OPY 17A 200W	nsp
			LF203 PAIR WITH Q266 AS K252	
⚠ K253		HK185919C0	TRS. KIT 2SA1859/2SC4883 O/O	HK185919C0
			OR Y/Y PAIR FOR Q262 AND Q263	
⚠ Q262		nsp	TRS. 2SC4883 O OR Y	nsp
			PAIR WITH Q263 AS K253	
⚠ Q263		nsp	TRS. 2SA1859 O OR Y	nsp
			PAIR WITH Q262 AS K253	

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
⚠ K352		HK121619F0	TRS. KIT 2SA1216/2SC2922 OPY	HK121619F0
			LF203 PAIR FOR Q366 AND Q367	
⚠ Q366		nsp	TRS. 2SC2922 OPY 17A 200W	nsp
			LF203 PAIR WITH Q367 AS K352	
⚠ Q367		nsp	TRS. 2SA1216 OPY 17A 200W	nsp
			LF203 PAIR WITH Q366 AS K352	
⚠ K353		HK185919C0	TRS. KIT 2SA1859/2SC4883 O/O	HK185919C0
			OR Y/Y PAIR FOR Q362 AND Q363	
⚠ Q362		nsp	TRS. 2SC4883 O OR Y	nsp
			PAIR WITH Q363 AS K353	
⚠ Q363		nsp	TRS. 2SA1859 O OR Y	nsp
			PAIR WITH Q362 AS K353	
Q151		HC10053090	IC NJM-2068-DD	HC10053090
Q153		HT600111B0	TRS. KTA1267 PNP (Y)	HT600111B0
Q154		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
Q155		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q156		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q157		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q158		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q159		HT600131B0	TRS. KTA1024 PNP (Y)	HT600131B0
Q160		HT800941B0	TRS. KTC3206 NPN (Y)	HT800941B0
⚠ Q164		HT900291B0	TRS. KTD600K NPN (Y)	HT900291B0
⚠ Q165		HT700241B0	TRS. KTB631K PNP (Y)	HT700241B0
Q168		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q253		HT600111B0	TRS. KTA1267 PNP (Y)	HT600111B0
Q254		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
Q255		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q256		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q257		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q258		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q259		HT600131B0	TRS. KTA1024 PNP (Y)	HT600131B0
Q260		HT800941B0	TRS. KTC3206 NPN (Y)	HT800941B0
⚠ Q264		HT900291B0	TRS. KTD600K NPN (Y)	HT900291B0
⚠ Q265		HT700241B0	TRS. KTB631K PNP (Y)	HT700241B0
Q268		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q351		HC10053090	IC NJM-2068-DD	HC10053090
Q353		HT600111B0	TRS. KTA1267 PNP (Y)	HT600111B0
Q354		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
Q355		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q356		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q357		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
Q358		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q359		HT600131B0	TRS. KTA1024 PNP (Y)	HT600131B0
Q360		HT800941B0	TRS. KTC3206 NPN (Y)	HT800941B0
⚠ Q364		HT900291B0	TRS. KTD600K NPN (Y)	HT900291B0
⚠ Q365		HT700241B0	TRS. KTB631K PNP (Y)	HT700241B0
Q368		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
Q501		HC10009090	IC NJM2901 QUAD COMPARATOR	HC10009090
Q502		HC10009090	IC NJM2901 QUAD COMPARATOR	HC10009090
QN01		HC10042050	IC TA7317P	HC10042050
QN02		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
QN03		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
QN09		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
QN11		BA20001000	DIG. TRS.	BA20001000
			DTC114ES/UN4211 10K 10K	
QN61		HC10009090	IC NJM2901 QUAD COMPARATOR	HC10009090
QN62		BA20001000	DIG. TRS.	BA20001000
			DTC114ES/UN4211 10K 10K	
QN63		BA20001000	DIG. TRS.	BA20001000
			DTC114ES/UN4211 10K 10K	
QN64		HT334191Y0	TRS. 2SC3419 Y 40V 0.8A	HT334191Y0
			PC=1.2W (5W)	
			P164-SPKOUTS SURR CENTER	
			MULTI CUIT BOARD	
			P164-CAPACITORS(COMMON)	
C****			PLASTIC FILM CAPACITOR	
			±5% 50V : C159 C160 C259	
			C260 C359 C360	

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
C***			HIGH DIELECTRIC CONSTANT CER.CAPACITOR ±10% 50V : C140 C169 C240 C269 C369	
			P164- RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : RN33 RN34	
			P164-SEMICONDUCTORS	
DN06		nsp	DIODE 1D3 1A/200V	HD20002710
DN08		nsp	DIODE 1D3 1A/200V	HD20002710
DN09		nsp	DIODE 1D3 1A/200V	HD20002710
QN07		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
			P164-MISCELLANEOUS	
J199		YT01060040	TERMINAL SPKROUT CENTER SL SR	YT01060040
J299		YT01040890	TERMINAL SPKROUT ML MR	YT01040890
⚠ LN02		LY20240310	RELAY VB 24MBU-510 5A/240VAC	LY20240310
⚠ LN04		LY20240310	RELAY VB 24MBU-510 5A/240VAC	LY20240310
⚠ LN05		LY20240310	RELAY VB 24MBU-510 5A/240VAC	LY20240310
			P174-Q161 CUIT BOARD	
Q161		HT334191Y0	TRS. C3419 Y 40V 0.8A PC=1.2W (5W)	HT334191Y0
			P214-Q211 CUIT BOARD	
Q211		HT334191Y0	TRS. C3419 Y 40V 0.8A PC=1.2W (5W)	HT334191Y0
			P254-Q261 CUIT BOARD	
Q261		HT334191Y0	TRS. C3419 Y 40V 0.8A PC=1.2W (5W)	HT334191Y0
			P314-Q311 CUIT BOARD	
Q311		HT334191Y0	TRS. C3419 Y 40V 0.8A PC=1.2W (5W)	HT334191Y0
			P354-Q361 CUIT BOARD	
Q361		HT334191Y0	TRS. C3419 Y 40V 0.8A PC=1.2W (5W)	HT334191Y0
			P414-SBR POWER AMP CUIT BOARD P414-CAPACITORS	
C405		nsp	ELECT. 10µF M 50V RA-2	OA10605020
C414		EA47610010	ELECT CAP. 47µF 100V	EA47610010
C415		EA47610010	ELECT CAP. 47µF 100V	EA47610010
CN16		nsp	ELECT. 10µF M 50V RA-2	OA10605020
			P414-CAPACITORS(COMMON)	
C***			PLASTIC FILM CAPACITOR ±5% 50V : C408	
			P414-RESISTORS	
R423		RA04710780	TRIM. 470Ω RH0638CS2R	RA04710780
⚠ R432		BW10000050	RES. COMPO. 0.1Ω K 5W X2 RGC-55	BW10000050
			P414- RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : R421 R422 R433-R437 R439 R548 RN44 RN45	

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			P414-SEMICONDUCTORS	
D403		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D404		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D405		HD30821000	ZENER DIODE 8.2V	HD30821000
D406		HD30821000	ZENER DIODE 8.2V	HD30821000
D407		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D408		nsp	DIODE HSS81TD 150V 150MA	HD20027010
D409		HD30431000	ZENER DIODE 4.3V	HD30431000
⚠ K402		HK121619F0	TRS. KIT 2SA1216/2SC2922(O Y) PAIR FOR Q416 AND Q417	HK121619F0
⚠ Q416		nsp	TRS. 2SC2922 O Y PAIR WITH Q417 AS K402	nsp
⚠ Q417		nsp	TRS. 2SA1216 O Y PAIR WITH Q416 AS K402	nsp
⚠ K403		HK185919C0	TRS. KIT 2SA1859/2SC4883 O/O OR Y/Y PAIR FOR Q412 AND Q413	HK185919C0
⚠ Q412		nsp	TRS. 2SC4883 O OR Y PAIR WITH Q413 AS K403	nsp
⚠ Q413		nsp	TRS. 2SA1859 O OR Y PAIR WITH Q412 AS K403	nsp
Q411		HT334191Y0	TRS. 2SC3419 Y 40V 0.8A PC=1.2W (5W)	HT334191Y0
⚠ Q414		HT900291B0	TRS. KTD600K NPN (Y)	HT900291B0
⚠ Q415		HT700241B0	TRS. KTB631K PNP (Y)	HT700241B0
Q418		HT800931A0	TRS. KTC3200 NPN (GR)	HT800931A0
QN10		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
			P604-DSP AND µ-COM CUIT BOARD P604-CAPACITORS	
C610		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C611		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C612		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C613		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C614		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C615		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C616		nsp	CER. CHIP 470pF (GR39)	DK96471300
C617		nsp	CER. CHIP 0.01µF	DK98103300
C618		nsp	ELECT. 2.2µF M 50V RA-2	OA22505020
C619		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C620		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C621		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C622		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C640		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C641		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C642		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C643		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C644		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C645		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C646		nsp	CER. CHIP 470pF (GR39)	DK96471300
C647		nsp	CER. CHIP 0.01µF	DK98103300
C648		nsp	ELECT. 2.2µF M 50V RA-2	OA22505020
C649		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C650		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C651		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C652		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C670		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C671		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C672		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C673		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C674		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C675		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C676 ∫ C685		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C691		nsp	ELECT. 47µF M 16V RA-2	OA47601620
C692		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
C693		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CR30		nsp	CER. CHIP 68pF (GR39)	DD95680300
CR31		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR32		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR33		nsp	CER. CHIP 470pF (GR39)	DK96471300
CR34		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR35		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR36		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CR44		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR50		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR51		nsp	CER. CHIP 0.01µF	DK98103300
CR52		nsp	CER. CHIP 0.01µF	DK98103300
CR53		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR54		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR55		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CR56		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR57		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CR58		nsp	CER. CHIP 22pF ±5% CG 50V	DD95220300
CR59		nsp	CER. CHIP 22pF ±5% CG 50V	DD95220300
CR60		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR61		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CR62		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR63		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CR64		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CR70		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU01		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU02		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU03		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU04		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU05		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU06		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU07		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU08		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU09		nsp	CER. CHIP 470pF (GR39)	DK96471300
CU12		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU13		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU14		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU15		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU16		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU17		nsp	ELECT. 10µF M 16V RA-2	OA10601620
CU18		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU19		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU20		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU21		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU25		nsp	CER. CHIP 1000pF ±10% B 50V	DK96102300
CU26		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU27		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU31		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU32		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU33		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU34		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU35		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU36		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU37		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU38		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU39		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU40		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CU41		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU42		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU43		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU44		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU45		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU46		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU47		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU50		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU51		nsp	ELECT. 47µF M 16V RA-2	OA47601620
CU52 ∫ CU55		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU60		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
CU61		nsp	CHIP RES. 0Ω ±5% 1/16W	NN05000610
CU62		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU63		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU64		nsp	CHIP RES. 0Ω ±5% 1/16W	NN05000610
CU70		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU71		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU80		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CU81		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
			P604-RESISTORS	
R601		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
R602		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
R603		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
R605		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
R606		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
R607		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
R610		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R611		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
R614 ∫ R623		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
R624		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
R626		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
R629		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
R630		nsp	CHIP RES. 33kΩ ±5% 1/16W	NN05333610
R631		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
R632		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
R633		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
R636		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R637		nsp	CHIP RES. 10Ω ±5% 1/16W	NN05100610
R638		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R640		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R641		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
R644 ∫ R653		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
R654		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
R656		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
R657		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
R658		nsp	CHIP RES. 33kΩ ±5% 1/16W	NN05333610
R659		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
R660		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
R661		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
R662		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R663		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R664		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R665		nsp	CHIP RES. 47Ω ±5% 1/16W	NN05470610
R666		nsp	CHIP RES. 47Ω ±5% 1/16W	NN05470610
R671 ∫ R679		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
R681		nsp	CHIP RES. 33Ω ±5% 1/16W	NN05330610
R682		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R683		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R684		nsp	CHIP RES. 10Ω ±5% 1/16W	NN05100610
R685		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R686		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R687		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
R688		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
R689		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
R691		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
R692		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
R693		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
R694		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RR30		nsp	CHIP RES. 75Ω ±5% 1/16W	NN05750610
RR31		nsp	CHIP RES. 27Ω ±5% 1/16W	NN05270610
RR32		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RR33		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RR50		nsp	CHIP RES. 8.2kΩ ±5% 1/16W	NN05822610
RR51		nsp	CHIP RES. 5.1kΩ ±5% 1/16W	NN05512610

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
RR52		nsp	CHIP RES. 5.1kΩ ±5% 1/16W	NN05512610
RR53		nsp	CHIP RES. 75Ω ±5% 1/16W	NN05750610
RR54		nsp	CHIP RES. 33Ω ±5% 1/16W	NN05330610
RR55		nsp	CHIP RES. 22Ω ±5% 1/16W	NN05220610
RR56		nsp	CHIP RES. 22Ω ±5% 1/16W	NN05220610
RR57		nsp	CHIP RES. 22Ω ±5% 1/16W	NN05220610
RR58		nsp	CHIP RES. 33Ω ±5% 1/16W	NN05330610
RR59		nsp	CHIP RES. 1MΩ ±5% 1/16W	NN05105610
RR60		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
RR61		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RR63		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RR65		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RR66		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RR72		nsp	CHIP RES. 22Ω ±5% 1/16W	NN05220610
RR73		nsp	CHIP RES. 33Ω ±5% 1/16W	NN05330610
RR74		nsp	CHIP RES. 22Ω ±5% 1/16W	NN05220610
RR75		nsp	CHIP RES. 10Ω ±5% 1/16W	NN05100610
RR76		nsp	CHIP RES. 22Ω ±5% 1/16W	NN05220610
RR77		nsp	CHIP RES. 33Ω ±5% 1/16W	NN05330610
RU01		nsp	CHIP RES. 12kΩ ±5% 1/16W	NN05123610
RU02		nsp	CHIP RES. 12kΩ ±5% 1/16W	NN05123610
RU03		nsp	CHIP RES. 12kΩ ±5% 1/16W	NN05123610
RU04		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
RU05		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
RU06		nsp	CHIP RES. 100Ω ±5% 1/16W	NN05101610
RU07		nsp	CHIP RES. 3kΩ ±5% 1/16W	NN05302610
RU08		nsp	CHIP RES. 0Ω ±5% 1/16W	NN05000610
RU09	/N	nsp	CHIP RES. 1.2kΩ ±5% 1/16W	NN05122610
RU10	/N	nsp	CHIP RES. 1kΩ ±5% 1/16W	NN05102610
RU11	/N	nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RU12	/N	nsp	CHIP RES. 1.2kΩ ±5% 1/16W	NN05122610
RU13		nsp	CHIP RES. 12kΩ ±5% 1/16W	NN05123610
RU14		nsp	CHIP RES. 12kΩ ±5% 1/16W	NN05123610
RU15		nsp	CHIP RES. 47kΩ ±5% 1/16W	NN05473610
RU17		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RU20		nsp	CHIP RES. 12kΩ ±5% 1/16W	NN05123610
RU21		nsp	CHIP RES. 12kΩ ±5% 1/16W	NN05123610
RU22		nsp	CHIP RES. 1kΩ ±5% 1/16W	NN05102610
RU24		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RU25		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RU26		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RU27		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RU28		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RU29		nsp	CHIP RES. 1MΩ ±5% 1/16W	NN05105610
RU31		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU32		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU37		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU38		nsp	CHIP RES. 100Ω ±5% 1/16W	NN05101610
RU39		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU41		nsp	CHIP RES. 1.2kΩ ±5% 1/16W	NN05122610
RU42		nsp	CHIP RES. 390Ω ±5% 1/16W	NN05391610
RU43		nsp	CHIP RES. 1.2kΩ ±5% 1/16W	NN05122610
RU44		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
RU50		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RU51		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RU56		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU57		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU58		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RU60		nsp	CHIP RES. 47Ω ±5% 1/16W	NN05470610
RU61		nsp	CHIP RES. 220Ω ±5% 1/16W	NN05221610
RU62		nsp	CHIP RES. 47Ω ±5% 1/16W	NN05470610
RU63		nsp	CHIP RES. 18kΩ ±5% 1/16W	NN05183610
RU64		nsp	CHIP RES. 220Ω ±5% 1/16W	NN05221610
RU65		nsp	CHIP RES. 47kΩ ±5% 1/16W	NN05473610
RU66		nsp	CHIP RES. 47kΩ ±5% 1/16W	NN05473610
RU67		nsp	CHIP RES. 220Ω ±5% 1/16W	NN05221610
RU70		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU71		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU72		nsp	CHIP RES. 0Ω ±5% 1/16W	NN05000610

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
RU74				
ʃ		nsp	CHIP RES. 0Ω ±5% 1/16W	NN05000610
RU78				
RU81		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RU82		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU83		nsp	CHIP RES. 6.8kΩ ±5% 1/16W	NN05682610
RU85		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU88		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RU89		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU90		nsp	CHIP RES. 6.8kΩ ±5% 1/16W	NN05682610
RU92		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RU95		nsp	CHIP RES. 220Ω ±5% 1/16W	NN05221610
			P604-SEMICONDUCTORS	
DU01		HZ20028050	CHIP DIODE 1SS301	HZ20028050
DU80		HZ20028050	CHIP DIODE 1SS301	HZ20028050
DU81		HZ20028050	CHIP DIODE 1SS301	HZ20028050
Q600		HY22010050	CHIP FET HN1K05FU 2SK2824 X 2	HY22010050
Q601		HY22010050	CHIP FET HN1K05FU 2SK2824 X 2	HY22010050
Q610		HC10009880	IC CS493292	HC10009880
			AUDIO DSP CRYSTAL	
Q611		HC009805K0	IC TC74VHCT245AFT	HC009805K0
Q640		HC10009880	IC CS493292	HC10009880
			AUDIO DSP CRYSTAL	
Q641		HC009805K0	IC TC74VHCT245AFT	HC009805K0
Q671		HC60021000	IC MBM29LV400TC-90P Flash ROM	HC60021000
			Note : Rom is written in after the	
			replacement. Refer to 67 pege	
Q673		HC009705K0	IC TC74VHCT244AFT	HC009705K0
Q674		HC009605K0	IC TC74VHC574FT	HC009605K0
Q675		HC009605K0	IC TC74VHC574FT	HC009605K0
Q676		HC009805K0	IC TC74VHCT245AFT	HC009805K0
Q680		HC008805K0	IC TC74VHCT541AFT	HC008805K0
Q681		HC008205K0	IC TC74VHC08FT	HC008205K0
Q682		HC009505K0	IC TC74VHC32FT	HC009505K0
Q683		HC005105K0	IC TC74VHC00FS	HC005105K0
Q684		HC009505K0	IC TC74VHC32FT	HC009505K0
Q685		HC009405K0	IC TC74VHC125FT	HC009405K0
QR44		HC008205K0	IC TC74VHC08FT	HC008205K0
QR50		HC10405030	IC LC89055 (SPDIF RECORDER)	HC10405030
QR70		HC008805K0	IC TC74VHCT541AFT	HC008805K0
QU01		HC60022010	IC H8S/2633 FP-128	HC60022010
			Note : µ-P is written in after the	
			replacement. Refer to 67 pege	
QU02		HC10098550	IC PST600D-2 RESET IC	HC10098550
QU03		BA10013050	DIG. TRS. RN2303 PNP(22K+22K)	BA10013050
QU05		BA21303000	DIG. TRS.	BA21303000
			DTC124EU RN1303 UMT	
QU20		HC005105K0	IC TC74VHC00FS	HC005105K0
QU21		HC009405K0	IC TC74VHC125FT	HC009405K0
⚠ QU41		HC3693032F	IC REG. PQ30RV11	HC3693032F
QU42		BA21303000	DIG. TRS.	BA21303000
			DTC124EU RN1303 UMT	
QU43		HT600141B0	TRS. KTA1271 PNP (Y)	HT600141B0
QU50		HC10204990	IC HIN202ECB	HC10204990
			16LEAD WIDE BODY	
QU60		BA21303000	DIG. TRS.	BA21303000
			DTC124EU RN1303 UMT	
QU61		BA10013050	DIG. TRS. RN2303 PNP(22K+22K)	BA10013050
QU62		BA21303000	DIG. TRS.	BA21303000
			DTC124EU RN1303 UMT	
QU63		BA10013050	DIG. TRS. RN2303 PNP(22K+22K)	BA10013050
QU65		BA10013050	DIG. TRS. RN2303 PNP(22K+22K)	BA10013050
QU66		BA21303000	DIG. TRS.	BA21303000
			DTC124EU RN1303 UMT	
QU67		BA10013050	DIG. TRS. RN2303 PNP(22K+22K)	BA10013050
QU68		BA10013050	DIG. TRS. RN2303 PNP(22K+22K)	BA10013050
⚠ QU69		HW10006320	PHOTO UNIT PC-817 PHOTO	HW10006320
			CUPLER 1PAIR	

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
QU70		HC10191990	IC AT24C08 8PIN ATMEL SOIC	HC10191990
QU71		HC10068490	IC PCF8574I(I/O EXPANDER)	HC10068490
QU80		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
QU81		BA21303000	DIG. TRS. DTC124EU RN1303 UMT	BA21303000
QU82		BA10013050	DIG. TRS. RN2303 PNP(22K+22K)	BA10013050
QU83		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
QU84		BA21303000	DIG. TRS. DTC124EU RN1303 UMT	BA21303000
QU85		BA10013050	DIG. TRS. RN2303 PNP(22K+22K)	BA10013050
QU86		BA21303000	DIG. TRS. DTC124EU RN1303 UMT	BA21303000
			P604-MISCELLANEOUS	
JR30		YT02010790	TERMINAL 14X14 RA 1L1P BLK AU FLM-GND	YT02010790
JR31		YJ15000210	OPT. OUTPUT CONNE. JFJ300	YJ15000210
JU50		YJ90001220	JACK DELC-J9PAF-20L9	YJ90001220
JU61		YT02020890	TERMINAL 2P CINCH PIN JACK	YT02020890
JU62		YT02021740	TERMINAL CINCH PIN JACK GRN-GRN	YT02021740
JU80		YJ01004750	JACK 3.5MM MINI JACK LGA6502-0150	YJ01004750
JU82		YJ01004670	JACK LGY6501-0600 3.5 MINI	YJ01004670
L691		FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LR30		TP41042030	PULSE TRNSF. (TPS247MN-0386AN)	TP41042030
LU01 ∫ LU54		FC90020120	FERRIT BEADS BK1608HM102-T	FC90020120
LU71 ∫ LU80		FC90020120	FERRIT BEADS BK1608HM102-T	FC90020120
LU81 ∫ LU86		FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LU87		FC90020120	FERRIT BEADS BK1608HM102-T	FC90020120
SU02		SP02022320	PUSH SWITCH SPUJ191000 WITH KNOB	SP02022320
XR50		JX12013260	CRYSTAL 12.288MHz (AT-49)	JX12013260
XU01		FQ05004050	CERAMIC VIB. CSTLS 5.0MHz	FQ05004050
P654		nsp	P.W.BOARD CONNECTION PCB	WI344J1020
J603		YJ06030450	JACK BASE POST 12P B12P-MQ-C	YJ06030450
J605		YJ06030450	JACK BASE POST 12P B12P-MQ-C	YJ06030450
			P814-PRIMARY CUIT BOARD	
			P814-CAPACITORS	
⚠ C802		nsp	CER. DE1607-1F 103M-KH	DK17103910
⚠ C803		nsp	CER. DE1607-1F 103M-KH	DK17103910
C805		nsp	ELECT. 100µF M 10V RA-2	OA10701020
⚠ C811		nsp	ELECT. 470µF 25V M RA-2	OA47702520
⚠ C812		nsp	ELECT. 47µF M 25V RA-2	OA47602520
⚠ C813		nsp	ELECT. 4700µF 16V	OA47801620
C817		nsp	ELECT. 100µF M 16V RA-2	OA10701620
			P814-RESISTORS	
⚠ R801		NQ15022070	ROTOR RES. 2.2Ω 7W W/TEMP. FUSE	NQ15022070
⚠ R802		NQ15022070	ROTOR RES. 2.2Ω 7W W/TEMP. FUSE	NQ15022070
⚠ R807		nsp	RES. 1Ω ±5% 1/4W	GG05010140
⚠ R808		nsp	RES. 470Ω ±5% 1/4W	GG05471140
⚠ R811		nsp	RES. 470Ω ±5% 1/6W	GG05471160
			P814- RESISTORS(COMMON)	
			CARBON FILM FIXED RES. ±5% 1/6W : R803-R806 R812 R813	

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			P814-SEMICONDUCTORS	
D801		nsp	DIODE 1D3 1A/200V	HD20002710
D802		nsp	DIODE 1D3 1A/200V	HD20002710
D803		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D804		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
⚠ D811 ∫ ⚠ D816		nsp	DIODE 1D3 1A/200V	HD20002710
D817		HD30511000	ZENER DIODE 5.1V	HD30511000
Q801		HT600111B0	TRS. KTA1267 PNP (Y)	HT600111B0
Q802		HT600111B0	TRS. KTA1267 PNP (Y)	HT600111B0
Q803		BA20001000	DIG. TRS. DTC114ES/UN4211 10K 10K	BA20001000
Q811		HC3850509F	IC REG. NJM78M05FA	HC3850509F
Q812		HC10098550	IC PST600D-2 RESET IC	HC10098550
			P814-MISCELLANEOUS	
⚠ F801	/N	FS10630850	FUSE 6.3 A 250V BS LISTED	FS10630850
⚠ J802	/N	YP04000760	PLUG CONNECTOR 2P B3P-VH	YP04000760
⚠ J804		YP04000760	PLUG CONNECTOR 2P B3P-VH	YP04000760
⚠ J805		YP04000760	PLUG CONNECTOR 2P B3P-VH	YP04000760
⚠ L801		LY10240240	RELAY VS24MB-NR TV-8 SEMKO LISTED	LY10240240
⚠ L802		LY10120400	RELAY POWER G5PA-1 5A	LY10120400
⚠ L811	/N	TS13521080	BACKUP TRANS. AC230V	TS13521080
			P824-POWER SWITCH CUIT BOARD	
⚠ C801	/N	nsp	CER. DE1307-1E 472M-KH	DK17472910
⚠ J803	/N	YP06013300	PLUG B2P3S-VH	YP06013300
⚠ S801	/N	SP01012460	PUSH SWITCH POWER SDDLB1 TV-5	SP01012460
			P834-POWER SUPPLY FOR POWER AMP CUIT BOARD	
			P834-CAPACITORS	
C831		nsp	ELECT. ELNA RA2 16X25	OA10805020
C832		nsp	ELECT. 470µF M 50V RA-2	OA47705020
C837		nsp	ELECT. 100µF M 25V RA-2	OA10702520
C838		nsp	ELECT. 100µF M 25V RA-2	OA10702520
C839		nsp	ELECT. 100µF M 50V RA-2	OA10705020
⚠ C842 ∫ ⚠ C845		OB18907120	ELECT. CAP 35XL90 VNSD BLUE ON MJI LOGO	OB18907120
C847		nsp	ELECT. 100µF M 25V RA-2	OA10702520
⚠ CN07		nsp	ELECT. 220µF M 50V RA-2	OA22705020
			P834-CAPACITORS(COMMON)	
C****			PLASTIC FILM CAPACITOR ±5% 50V : C512	
C****			HIGH DIELECTRIC CONSTANT CER.CAPACITOR ±10% 50V : C513	
			P834-RESISTORS	
⚠ RN24		nsp	RES. 1Ω ±5% 1/4W	GG05010140
			P834- RESISTORS(COMMON)	
R****			CARBON FILM FIXED RES. ±5% 1/6W : R536 R537 R551-R563 RN25 RN26 RN46	
			P834-SEMICONDUCTORS	
D501		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D502		nsp	DIODE 1D3 1A/200V	HD20002710

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
D503		nsp	DIODE 1D3 1A/200V	HD20002710
⚠ D831				
⟆		nsp	DIODE 1D3 1A/200V	HD20002710
⚠ D838				
D839		HD33301000	ZENER DIODE MTZJ33D	HD33301000
D840		HD30681000	ZENER DIODE 6.8V	HD30681000
⚠ D841		HE20029290	DIODE 600V 25A	HE20029290
			BRIDGE-DI D25XB60	
⚠ DN01		nsp	DIODE 1D3 1A/200V	HD20002710
⚠ DN02		nsp	DIODE 1D3 1A/200V	HD20002710
DN03		HD30201000	ZENER DIODE MTZJ2.0B	HD30201000
DN04		HD30201000	ZENER DIODE MTZJ2.0B	HD30201000
⚠ L501		LY10240300	RELAY VSB24STB 16A AVSS	LY10240300
⚠ L502		LY10240300	RELAY VSB24STB 16A AVSS	LY10240300
Q503		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
Q504		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
Q505		BA20001000	DIG. TRS.	BA20001000
			DTC114ES/UN4211 10K 10K	
Q506		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
Q507		HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
Q508		HT600111B0	TRS. KTA1267 PNP (Y)	HT600111B0
⚠ Q831		HC3851809F	IC REG. NJM78M18FA	HC3851809F
⚠ Q832		HC3951809F	IC NJM79M18FA JR	HC3951809F
			-18V 500MA REG.	
⚠ Q833		HC3851809F	IC NJM78M18FA REG.	HC3851809F
			P844-MAINS INLET	
			CUIT BOARD	
⚠ J810		YJ04002440	JACK 2P MAINS INLET PWI1910-H	YJ04002440
			PC04-FRONT PCB	
			CUIT BOARD	
			PC04-CAPACITORS	
CC01		nsp	CER. 0.01µF Z 50V	DK18103310
CC02		nsp	CER. 0.01µF Z 50V	DK18103310
CC03		nsp	CER. 0.01µF Z 50V	DK18103310
CC04		nsp	CER. 0.01µF Z 50V	DK18103310
CC05		nsp	ELECT. 100µF M 50V RA-2	OA10705020
CC12		nsp	CER. 0.01µF Z 50V	DK18103310
CC15		nsp	CER. 0.01µF Z 50V	DK18103310
CC16		nsp	CER. 0.01µF Z 50V	DK18103310
CC20		nsp	CER. 0.01µF Z 50V	DK18103310
CC23		nsp	CER. 0.01µF Z 50V	DK18103310
CC24		nsp	CER. 0.01µF Z 50V	DK18103310
CC28		nsp	CER. 0.01µF Z 50V	DK18103310
CC30		nsp	CER. 0.01µF Z 50V	DK18103310
CC33		nsp	CER. 0.01µF Z 50V	DK18103310
			PC04-CAPACITORS(COMMON)	
C***			PLASTIC FILM CAPACITOR	
			±5% 50V : CC22	
			PC04-RESISTORS	
RC07		BW05473230	RES. COMPO.	BW05473230
			RKC13BS473J ±5% P1.8	
RC08		BW05473230	RES. COMPO.	BW05473230
			RKC13BS473J ±5% P1.8	
RC09		BW05103330	RES. COMPO.	BW05103330
			RKC13BS103J ±5% P1.8	
RC10		BW05473230	RES. COMPO.	BW05473230
			RKC13BS473J ±5% P1.8	
			PC04- RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RC01-RC05	
			RC11-RC30 RC33 RC36 RC38	
			RC40-RC43	

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			PC04-SEMICONDUCTORS	
DC01				
⟆		HI20006030	GAS LED GL-350	HI20006030
DC04			SLR-932AV-8K A RANK 5MM P2.5	
DC05		nsp	DIODE	HD20002000
			1SS176 MA165 1SS254 30V 0.1A	
QC01		HC10220090	IC NJU3430FG1	HC10220090
QC02		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QC03		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QC04		HC10098550	IC PST600D-2 RESET IC	HC10098550
QC05		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QC06		HT800951B0	TRS. KTC3203 NPN (Y)	HT800951B0
QC07		HT800951B0	TRS. KTC3203 NPN (Y)	HT800951B0
QC08		BA10001000	DIG. TRS.	BA10001000
			DTA114ES/UN4111 10K 10K	
QC09		HW10002620	PHOTO UNIT	HW10002620
			IR SENSOR TSOP 1136 TB1	
			PC04-MISCELLANEOUS	
SC01				
⟆		SP01013370	PUSH SWITCH	SP01013370
SC22			EVQ11L05R H/5MM 160GF	
SC23		SR02010070	ROTARY SWITCH ROTALY	SR02010070
			ENCODER 36PULSE EC16B	
VC01		HQ31601410	DISPLAY UNIT	HQ31601410
			6-BT-92GNK	
			PC64-ENCODER	
			CUIT BOARD	
			PC64-CAPACITORS	
CC60		nsp	CER. 0.01µF Z 50V	DK18103310
CC61		nsp	CER. 0.01µF Z 50V	DK18103310
CC62		nsp	CER. 0.01µF Z 50V	DK18103310
			PC64- RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RC60-RC65	
			PC64-SEMICONDUCTORS	
DC60		HI10099320	L.E.D. GL3ED8 SHARP	HI10099320
			RED/GREEN	
QC60		BA10001000	DIG. TRS.	BA10001000
			DTA114ES/UN4111 10K 10K	
QC61		BA10001000	DIG. TRS.	BA10001000
			DTA114ES/UN4111 10K 10K	
			PC64-MISCELLANEOUS	
JC60		YJ06008860	JACK 06JQ-ST 6P (YOKO)	YJ06008860
SC60		SR02010080	ROTARY SWITCH ROT ENCOD	SR02010080
			EC16B 16PLS 16CLICK	
			PC74-JYRO	
			CUIT BOARD	
QC70	/N	HW10033320	PHOTO UNIT GP1A06 2PHASE	HW10033320
RC70	/N	nsp	RES. 330Ω ±5% 1/6W	GD05331160
			PD04-DIG IN/ADC/DAC	
			CUIT BOARD	
			PD04-CAPACITORS	
CA01				
⟆		nsp	CER. CHIP 0.1µF ±10% B 10V	DK96104200
CA05				
CA06		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CA07		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CA08		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CA09		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CA10		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CA12		nsp	ELECT. 47µF M 25V RA-2	OA47602520

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
CA14				
∫		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CA20				
CD01		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD02		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD03		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD04		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD05				
∫		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD12				
CD13		nsp	ELECT. 100µF 10V ARA	OA10701050
CD14		nsp	ELECT. 100µF 10V ARA	OA10701050
CD15		nsp	ELECT. 100µF 10V ARA	OA10701050
CD16		nsp	ELECT. 100µF 10V ARA	OA10701050
CD17		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD18		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD19		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD20		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD21		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CD22		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CD23		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CD24		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CD25		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD26		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD27		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD28		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD29		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD30		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD31		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD32		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD33		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD34		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD35		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD36		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD37		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD38		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD39		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD40		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CD41		nsp	CER. CHIP 100pF ±5% CG 50V	DD95101300
CD42		nsp	CER. CHIP 100pF ±5% CG 50V	DD95101300
CD43		nsp	CER. CHIP 100pF ±5% CG 50V	DD95101300
CD44		nsp	CER. CHIP 100pF ±5% CG 50V	DD95101300
CD50		nsp	CER. CHIP 0.01µF	DK98103300
CD51		nsp	CER. CHIP 0.01µF	DK98103300
CD52		nsp	CER. CHIP 0.01µF	DK98103300
CD53		nsp	CER. CHIP 0.01µF	DK98103300
CD54		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD55		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CD56		nsp	CER. CHIP 0.01µF	DK98103300
CD57		nsp	CER. CHIP 0.01µF	DK98103300
CD58		nsp	CER. CHIP 0.01µF	DK98103300
CD59		nsp	CER. CHIP 0.01µF	DK98103300
CD60		nsp	ELECT. 220µF M 6.3V RA-2	OA22700620
CD61		nsp	ELECT. 220µF M 6.3V RA-2	OA22700620
CD62		nsp	ELECT. 220µF M 6.3V RA-2	OA22700620
CD63		nsp	ELECT. 220µF M 6.3V RA-2	OA22700620
CD64		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CD65		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CH01				
∫		DF15821350	FILM 820pF J 50V	DF15821350
CH08				
CH09				
∫		OF15271540	FILM 270pF TP 100V PP APSV	OF15271540
CH16				
CH17		nsp	RES. 0Ω ±5% 1/4W	GD05000140
CH18		nsp	RES. 0Ω ±5% 1/4W	GD05000140
CH19		nsp	RES. 0Ω ±5% 1/4W	GD05000140
CH20		nsp	RES. 0Ω ±5% 1/4W	GD05000140
CH21		OF15561540	FILM 560pF TP 100V PP APSV	OF15561540
CH22		OF15561540	FILM 560pF TP 100V PP APSV	OF15561540

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
CH23		OF15561540	FILM 560pF TP 100V PP APSV	OF15561540
CH24		OF15561540	FILM 560pF TP 100V PP APSV	OF15561540
CH25		nsp	ELECT. 22µF M 25V ARS-TYPE	OA22602540
CH26		nsp	ELECT. 22µF M 25V ARS-TYPE	OA22602540
CH27		nsp	ELECT. 22µF M 25V ARS-TYPE	OA22602540
CH28		nsp	ELECT. 22µF M 25V ARS-TYPE	OA22602540
CH29		nsp	CER. CHIP 22pF ±5% CG 50V	DD95220300
CH30		nsp	CER. CHIP 22pF ±5% CG 50V	DD95220300
CH31		nsp	CER. CHIP 22pF ±5% CG 50V	DD95220300
CH32		nsp	CER. CHIP 22pF ±5% CG 50V	DD95220300
CH33		nsp	ELECT. 22µF 25V ARA	OA22602550
CH34		nsp	ELECT. 22µF 25V ARA	OA22602550
CH35		nsp	ELECT. 22µF 25V ARA	OA22602550
CH36		nsp	ELECT. 22µF 25V ARA	OA22602550
CH37		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CH38		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CH39		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CH40		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CH41		OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CH42		OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CH43		nsp	CER. CHIP 47pF ±5% CG 50V	DD95470300
CH44		nsp	CER. CHIP 47pF ±5% CG 50V	DD95470300
CH45		nsp	ELECT. 22µF 25V ARA	OA22602550
CH46		nsp	ELECT. 22µF 25V ARA	OA22602550
CH47		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CH48		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CH49				
∫		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CH56				
CJ01				
∫		DF15821350	FILM 820pF J 50V	DF15821350
CJ08				
CJ09				
∫		OF15271540	FILM 270pF TP 100V PP APSV	OF15271540
CJ16				
CJ17		nsp	RES. 0Ω ±5% 1/4W	GD05000140
CJ18		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CJ19		nsp	RES. 0Ω ±5% 1/4W	GD05000140
CJ20		nsp	RES. 0Ω ±5% 1/4W	GD05000140
CJ21		OF15561540	FILM 560pF TP 100V PP APSV	OF15561540
CJ22		OF15561540	FILM 560pF TP 100V PP APSV	OF15561540
CJ23		OF15561540	FILM 560pF TP 100V PP APSV	OF15561540
CJ24		OF15561540	FILM 560pF TP 100V PP APSV	OF15561540
CJ25		nsp	ELECT. 22µF M 25V ARS-TYPE	OA22602540
CJ26		nsp	ELECT. 22µF M 25V ARS-TYPE	OA22602540
CJ27		nsp	ELECT. 22µF M 25V ARS-TYPE	OA22602540
CJ28		nsp	ELECT. 22µF M 25V ARS-TYPE	OA22602540
CJ29		nsp	CER. CHIP 22pF ±5% CG 50V	DD95220300
CJ30		nsp	CER. CHIP 22pF ±5% CG 50V	DD95220300
CJ31		nsp	CER. CHIP 22pF ±5% CG 50V	DD95220300
CJ32		nsp	CER. CHIP 22pF ±5% CG 50V	DD95220300
CJ33		nsp	ELECT. 22µF 25V ARA	OA22602550
CJ34		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CJ35		nsp	ELECT. 22µF 25V ARA	OA22602550
CJ36		nsp	ELECT. 22µF 25V ARA	OA22602550
CJ37		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CJ38		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CJ39		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CJ40		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CJ41				
∫		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CJ48				
CK01		nsp	RES. 0Ω ±5% 1/4W	GD05000140
CK02		nsp	RES. 0Ω ±5% 1/4W	GD05000140
CK03		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CK04		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CK05		nsp	CER. CHIP 150pF ±5% CG 50V	DD95151300
CK06		nsp	CER. CHIP 150pF ±5% CG 50V	DD95151300
CK07		nsp	CER. CHIP 100pF ±5% CG 50V	DD95101300
CK08		nsp	CER. CHIP 100pF ±5% CG 50V	DD95101300

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
CK09		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CK10		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CK11				
⟆		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CK17				
CK18		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CK19		nsp	ELECT. 1µF M 50V RA-2	OA10505020
CK20		nsp	ELECT. 1µF M 50V RA-2	OA10505020
CK21		nsp	CER. CHIP 47pF ±5% CG 50V	DD95470300
CK22		nsp	CER. CHIP 47pF ±5% CG 50V	DD95470300
CK23		nsp	CER. CHIP 47pF ±5% CG 50V	DD95470300
CK24		nsp	CER. CHIP 47pF ±5% CG 50V	DD95470300
CK25		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CK26		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CK27		nsp	CER. CHIP 47pF ±5% CG 50V	DD95470300
CK28		nsp	CER. CHIP 47pF ±5% CG 50V	DD95470300
CK29		nsp	CER. CHIP 0.1µF 50V F C1608JF1H104Z	DK98104300
CK30		nsp	CER. CHIP 0.22µF ±10% B 10V	DK96224200
CK51		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CK52		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CK53		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CK54		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CK55		nsp	CER. CHIP GRM39F224Z16 0.22UF	DK98224200
CK56		nsp	CER. CHIP GRM39F224Z16 0.22UF	DK98224200
CK57		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CK58		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CK59		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CK60		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CK61		nsp	CER. CHIP 470pF (GR39)	DK96471300
CK68		nsp	CER. CHIP 470pF (GR39)	DK96471300
			PD04-RESISTORS	
RA01				
⟆		nsp	CHIP RES. 75Ω ±5% 1/16W	NN05750610
RA05				
RA06				
⟆		nsp	CHIP RES. 1kΩ ±5% 1/16W	NN05102610
RA10				
RA11				
⟆		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RA15				
RA16				
⟆		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RA20				
RA21		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RA22		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RA23		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RA24		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RD01				
⟆		nsp	CHIP RES. 1kΩ ±5% 1/16W	NN05102610
RD08				
RD09		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RH01				
⟆		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
RH28				
RH29		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RH30		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RH31		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RH32		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RH33		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RH34		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RH35		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RH36		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RH37		nsp	CHIP RES. 560kΩ ±5% 1/16W	NN05564610
RH38		nsp	CHIP RES. 560kΩ ±5% 1/16W	NN05564610
RH39		nsp	CHIP RES. 120kΩ ±5% 1/16W	NN05124610
RH40		nsp	CHIP RES. 120kΩ ±5% 1/16W	NN05124610
RH41		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RH42		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
RH43		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RH44		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RH45		nsp	CHIP RES. 470Ω ±5% 1/16W	NN05471610
RH46		nsp	CHIP RES. 470Ω ±5% 1/16W	NN05471610
RH47		nsp	CHIP RES. 470Ω ±5% 1/16W	NN05471610
RH48		nsp	CHIP RES. 470Ω ±5% 1/16W	NN05471610
RH49		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RH50		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RH51		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RH52		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RH53		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RH54		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RH55		nsp	CHIP RES. 3.3kΩ ±5% 1/16W	NN05332610
RH56		nsp	CHIP RES. 3.3kΩ ±5% 1/16W	NN05332610
RH57		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RH58		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RH59		nsp	CHIP RES. 3.3kΩ ±5% 1/16W	NN05332610
RH60		nsp	CHIP RES. 3.3kΩ ±5% 1/16W	NN05332610
RH61		nsp	CHIP RES. 470Ω ±5% 1/16W	NN05471610
RH62		nsp	CHIP RES. 470Ω ±5% 1/16W	NN05471610
RH63		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RH64		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RJ01				
⟆		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
RJ28				
RJ29		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RJ30		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RJ31		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RJ32		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RJ33		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RJ34		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RJ35		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RJ36		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RJ37		nsp	CHIP RES. 560kΩ ±5% 1/16W	NN05564610
RJ38		nsp	CHIP RES. 68kΩ ±5% 1/16W	NN05683610
RJ39		nsp	CHIP RES. 120kΩ ±5% 1/16W	NN05124610
RJ40		nsp	CHIP RES. 120kΩ ±5% 1/16W	NN05124610
RJ41		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RJ42		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RJ43		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RJ44		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RJ45		nsp	CHIP RES. 470Ω ±5% 1/16W	NN05471610
RJ46		nsp	CHIP RES. 470Ω ±5% 1/16W	NN05471610
RJ47		nsp	CHIP RES. 470Ω ±5% 1/16W	NN05471610
RJ48		nsp	CHIP RES. 470Ω ±5% 1/16W	NN05471610
RJ49		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RJ50		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RJ51		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RJ52		nsp	CHIP RES. 100kΩ ±5% 1/16W	NN05104610
RK01		nsp	CHIP RES. 6.8kΩ ±5% 1/16W	NN05682610
RK02		nsp	CHIP RES. 6.8kΩ ±5% 1/16W	NN05682610
RK03		nsp	CHIP RES. 3.9kΩ ±5% 1/16W	NN05392610
RK04		nsp	CHIP RES. 3.9kΩ ±5% 1/16W	NN05392610
RK05		nsp	CHIP RES. 2.7kΩ ±5% 1/16W	NN05272610
RK06		nsp	CHIP RES. 2.7kΩ ±5% 1/16W	NN05272610
RK07		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
RK08		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
RK09		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RK10		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RK11		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK12		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK13		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK14		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK15		nsp	CHIP RES. 330Ω ±5% 1/16W	NN05331610
RK16		nsp	CHIP RES. 330Ω ±5% 1/16W	NN05331610
RK17		nsp	CHIP RES. 330Ω ±5% 1/16W	NN05331610
RK18		nsp	CHIP RES. 330Ω ±5% 1/16W	NN05331610
RK19		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
RK20		nsp	CHIP RES. 2.2kΩ ±5% 1/16W	NN05222610
RK21		nsp	CHIP RES. 1MΩ ±5% 1/16W	NN05105610

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
RK23		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RK24		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RK25		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RK26		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RK27		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RK28		nsp	CHIP RES. 22kΩ ±5% 1/16W	NN05223610
RK29		nsp	CHIP RES. 47kΩ ±5% 1/16W	NN05473610
RK30		nsp	CHIP RES. 47kΩ ±5% 1/16W	NN05473610
RK31		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RK32		nsp	CHIP RES. 47kΩ ±5% 1/16W	NN05473610
RK33		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK34		nsp	CHIP RES. 5.6kΩ ±5% 1/16W	NN05562610
RK35		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK36		nsp	CHIP RES. 5.6kΩ ±5% 1/16W	NN05562610
RK37		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK39		nsp	CHIP RES. 680kΩ ±5% 1/16W	NN05684610
RK40		nsp	CHIP RES. 680kΩ ±5% 1/16W	NN05684610
RK41		nsp	CHIP RES. 680kΩ ±5% 1/16W	NN05684610
RK42		nsp	CHIP RES. 47kΩ ±5% 1/16W	NN05473610
RK43		nsp	CHIP RES. 680kΩ ±5% 1/16W	NN05684610
RK44		nsp	CHIP RES. 4.7kΩ ±5% 1/16W	NN05472610
RK46		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK47		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK48		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK49		nsp	CHIP RES. 3.3kΩ ±5% 1/16W	NN05332610
RK50		nsp	CHIP RES. 3.3kΩ ±5% 1/16W	NN05332610
RK51		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK58		nsp	CHIP RES. 470Ω ±5% 1/16W	NN05471610
RK70		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK71		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK72		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK73		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK76		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
RK77		nsp	CHIP RES. 10kΩ ±5% 1/16W	NN05103610
			PD04-SEMICONDUCTORS	
DA01 ∫ DA05		HZ20018050	CHIP DIODE 1SS302 (TOSHIBA)	HZ20018050
DK01 ∫ DK05		HZ20018050	CHIP DIODE 1SS302 (TOSHIBA)	HZ20018050
DK70		HZ20018050	CHIP DIODE 1SS302 (TOSHIBA)	HZ20018050
DK71		HZ20018050	CHIP DIODE 1SS302 (TOSHIBA)	HZ20018050
QA01		HC700400Z0	IC CMOS 74HCU04	HC700400Z0
QA02		HC700400Z0	IC CMOS 74HCU04	HC700400Z0
QA03		HC715100Z0	IC TC74HC151AF	HC715100Z0
QA04		HC715100Z0	IC TC74HC151AF	HC715100Z0
QA05		HC703200Z0	IC OR-GATE 74HC32	HC703200Z0
QA06		HC700000Z0	IC CMOS 74HC00 FLAT	HC700000Z0
QA07		HC10068490	IC PCF8574I(I/O EXPANDER)	HC10068490
QD01		HC10011880	IC 24BIT 192KHZ DAC DR=120DB	HC10011880
QD02		HC10011880	IC 24BIT 192KHZ DAC DR=120DB	HC10011880
QD03		HC10011880	IC 24BIT 192KHZ DAC DR=120DB	HC10011880
QD04		HC10011880	IC 24BIT 192KHZ DAC DR=120DB	HC10011880
QH01 ∫ QH05		HC10102090	IC NJM2068M	HC10102090
QJ01 ∫ QJ04		HC10102090	IC NJM2068M	HC10102090
QK01		HX342132A0	CHIP TR. 2SC4213	HX342132A0
QK02		HX342132A0	CHIP TR. 2SC4213	HX342132A0
QK03		HC10172090	IC NJM2115M TE1	HC10172090
QK04		HC10172090	IC NJM2115M TE1	HC10172090
QK05		HC10102090	IC NJM2068M	HC10102090
QK06		HC10102090	IC NJM2068M	HC10102090
QK07		BA10026210	DIG. TRS. DTA114EU	BA10026210
QK08		HC10172090	IC NJM2115M TE1	HC10172090

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
QK51		HC10033480	IC ADC AK5383VS 96KHZ 24BIT	HC10033480
QK70		BA10026210	DIG. TRS. DTA114EU	BA10026210
QK71		HT800951B0	TRS. KTC3203 NPN (Y)	HT800951B0
QK72		BA10026210	DIG. TRS. DTA114EU	BA10026210
QK73		HT800951B0	TRS. KTC3203 NPN (Y)	HT800951B0
			PD04-MISCELLANEOUS	
JA01		YT02030610	TERMINAL 14X14 RA 1L3P BLK AU F-SHIELD	YT02030610
JA02		YT02021540	TERMINAL CINCH 2P AU(BL) FRONT SHIELD	YT02021540
JA03		YJ15000200	OPT. RECEIVER CONNE. JFJ400	YJ15000200
JA04		YJ15000200	OPT. RECEIVER CONNE. JFJ400	YJ15000200
JA05		YJ15000200	OPT. RECEIVER CONNE. JFJ400	YJ15000200
JA06		YJ15000200	OPT. RECEIVER CONNE. JFJ400	YJ15000200
LD01		FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LD02		FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LD03		FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LD04		FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LK70		LY20240480	RELAY MR82-24USR	LY20240480
LK71		LY20240480	RELAY MR82-24USR	LY20240480
			PF14-COMPONENT CUIT BOARD	
			PF14-CAPACITORS	
CF61	/N	nsp	CER. 0.01µF Z 50V	DK18103310
CF62	/N	nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF63	/N	nsp	ELECT. 470µF M 6.3V RA-2	OA47700620
			PF14-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : RF51 RF52 RF54 RF55 RF57 RF58 RF74 RF75 RF77	
			PF14-SEMICONDUCTORS	
DF51 ∫ DF54	/N	nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
QF51 ∫ QF54	/ N	HT800921B0	TRS. KTC3199 NPN (Y)	HT800921B0
			PF14-MISCELLANEOUS	
JF51	/N	YT02030700	TERMINAL YKC21-4076 1L3 FS AU	YT02030700
JF52	/N	YT02060640	TERMINAL 6P CINCH R/G/B DUAL GND 2L6P	YT02060640
JF53	/N	YT02060640	TERMINAL 6P CINCH R/G/B DUAL GND 2L6P	YT02060640
LF51 ∫ LF57	/N	LY20240480	RELAY MR82-24USR	LY20240480
LF59	/N	LY20240480	RELAY MR82-24USR	LY20240480
			PG04-ELE.VOLUME CUIT BOARD	
			PG04-CAPACITORS	
CE01		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE02		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE03		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CE04		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CE05		OF15101540	FILM 100pF J 100V APSV	OF15101540
CE06		OF15101540	FILM 100pF J 100V APSV	OF15101540
CE09		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CE10		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CE11		nsp	ELECT. 22µF M 25V ARS	OA22602540
CE12		nsp	ELECT. 22µF M 25V ARS	OA22602540
CE13		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CE14		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CE15		OF15101540	FILM 100pF J 100V APSV	OF15101540

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
CE16		OF15101540	FILM 100pF J 100V APSV	OF15101540
CE19		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE20		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE21		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CE22		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CE23	/N	OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CE24	/N	OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CE25	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CE26	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CE41		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE43		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE49		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CE50		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CE51		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE52		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE53		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CE54		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CE55		OF15101540	FILM 100pF J 100V APSV	OF15101540
CE59		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CE60		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CE61		nsp	ELECT. 22µF M 25V ARS	OA22602540
CE62		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CE63		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CE64		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE65		OF15101540	FILM 100pF J 100V APSV	OF15101540
CE69		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE70		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE71		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CE73	/N	OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CE74	/N	OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CE75	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CE91		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CE93		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG01		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG02		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG03		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CG04		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CG05		OF15101540	FILM 100pF J 100V APSV	OF15101540
CG06		OF15101540	FILM 100pF J 100V APSV	OF15101540
CG09		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CG10		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CG11		nsp	ELECT. 22µF M 25V ARS	OA22602540
CG12		nsp	ELECT. 22µF M 25V ARS	OA22602540
CG13		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CG14		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CG15		OF15101540	FILM 100pF J 100V APSV	OF15101540
CG16		OF15101540	FILM 100pF J 100V APSV	OF15101540
CG19		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG20		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG21		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CG22		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CG23	/N	OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CG24	/N	OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CG25	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CG26	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CG41		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG43		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG51		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG52		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG53		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CG54		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CG55		OF15101540	FILM 100pF J 100V APSV	OF15101540
CG56		OF15101540	FILM 100pF J 100V APSV	OF15101540
CG59		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CG60		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CG61		nsp	ELECT. 22µF M 25V ARS	OA22602540
CG62		nsp	ELECT. 22µF M 25V ARS	OA22602540
CG63		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CG64		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CG65		OF15101540	FILM 100pF J 100V APSV	OF15101540
CG66		OF15101540	FILM 100pF J 100V APSV	OF15101540
CG69		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG70		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG71		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CG72		OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CG73	/N	OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CG74	/N	OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CG75	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CG76	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CG91		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CG93		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CM01		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CM02		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CM03		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CM04		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CM09		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CM10		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CM11		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CM12		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CM13		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CM14		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CM19		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CM20		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CM23	/N	OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CM24	/N	OF15221540	FILM 220pF TP 100V PP APSV	OF15221540
CM31		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CM32		nsp	ELECT. 22µF M 50V RA-2	OA22605020
CM33		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CM34		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CM39		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CM40		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CM61		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CM63		nsp	ELECT. 47µF M 25V RA-2	OA47602520
			PG04-CAPACITORS(COMMON)	
C***			HIGH DIELECTRIC CONSTANT	
			CER.CAPACITOR ±10% 50V :	
			CE40 CE45-CE48 CE56 CE66	
			CE72 CE90 CG40 CG90 CM05	
			CM06 CM15 CM16 CM21 CM22	
			CM35 CM36 CM41 CM42 CM60	
			PG04-RESISTORS	
RE01		NI05104110	CHIP RES. 100kΩ ±5% 1/10W	NI05104110
RE02		NI05104110	CHIP RES. 100kΩ ±5% 1/10W	NI05104110
RE03		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RE04		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RE05		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RE06		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RE07		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE08		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE09		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE10		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE11		NI05562110	CHIP RES. 5.6kΩ ±5% 1/10W	NI05562110
RE12		NI05562110	CHIP RES. 5.6kΩ ±5% 1/10W	NI05562110
RE13		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RE14		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RE15		NI05822110	CHIP RES. 8.2kΩ ±5% 1/10W	NI05822110
RE16		NI05822110	CHIP RES. 8.2kΩ ±5% 1/10W	NI05822110
RE17		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE18		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE19		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RE20		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RE21		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RE22		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RE23		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RE24		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RE25		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RE26		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RE27		NI05330110	CHIP RES. 33Ω ±5% 1/10W	NI05330110

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
RE28		NI05330110	CHIP RES. 33Ω ±5% 1/10W	NI05330110
RE40		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RE41		NI05105110	CHIP RES. 1MΩ ±5% 1/10W	NI05105110
RE43		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RE44		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RE45		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RE47		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RE48		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RE51		NI05104110	CHIP RES. 100kΩ ±5% 1/10W	NI05104110
RE52		NI05104110	CHIP RES. 100kΩ ±5% 1/10W	NI05104110
RE53		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RE54		NI05273110	CHIP RES. 27kΩ ±5% 1/10W	NI05273110
RE55		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RE56		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RE57		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE58		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE59		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE60		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE61		NI05562110	CHIP RES. 5.6kΩ ±5% 1/10W	NI05562110
RE62		NI05152110	CHIP RES. 1.5kΩ ±5% 1/10W	NI05152110
RE63		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RE64		NI05182110	CHIP RES. 1.8kΩ ±5% 1/10W	NI05182110
RE65		NI05822110	CHIP RES. 8.2kΩ ±5% 1/10W	NI05822110
RE66		NI05822110	CHIP RES. 8.2kΩ ±5% 1/10W	NI05822110
RE67		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE68		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RE69		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RE70		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RE71		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RE72		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RE73		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RE74		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RE75		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RE76		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RE77		NI05330110	CHIP RES. 33Ω ±5% 1/10W	NI05330110
RE78		NI05330110	CHIP RES. 33Ω ±5% 1/10W	NI05330110
RE90		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RE91		NI05105110	CHIP RES. 1MΩ ±5% 1/10W	NI05105110
RE92		NI05105110	CHIP RES. 1MΩ ±5% 1/10W	NI05105110
RG01		NI05104110	CHIP RES. 100kΩ ±5% 1/10W	NI05104110
RG02		NI05104110	CHIP RES. 100kΩ ±5% 1/10W	NI05104110
RG03		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RG04		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RG05		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RG06		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RG07		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG08		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG09		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG10		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG11		NI05562110	CHIP RES. 5.6kΩ ±5% 1/10W	NI05562110
RG12		NI05562110	CHIP RES. 5.6kΩ ±5% 1/10W	NI05562110
RG13		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG14		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG15		NI05822110	CHIP RES. 8.2kΩ ±5% 1/10W	NI05822110
RG16		NI05822110	CHIP RES. 8.2kΩ ±5% 1/10W	NI05822110
RG17		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG18		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG19		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RG20		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RG21		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RG22		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RG23		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG24		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG25		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG26		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG27		NI05330110	CHIP RES. 33Ω ±5% 1/10W	NI05330110
RG28		NI05330110	CHIP RES. 33Ω ±5% 1/10W	NI05330110
RG40		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RG41		NI05105110	CHIP RES. 1MΩ ±5% 1/10W	NI05105110
RG51		NI05104110	CHIP RES. 100kΩ ±5% 1/10W	NI05104110

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
RG52		NI05104110	CHIP RES. 100kΩ ±5% 1/10W	NI05104110
RG53		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RG54		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RG55		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RG56		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RG57		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG58		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG59		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG60		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG61		NI05562110	CHIP RES. 5.6kΩ ±5% 1/10W	NI05562110
RG62		NI05562110	CHIP RES. 5.6kΩ ±5% 1/10W	NI05562110
RG63		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG64		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG65		NI05822110	CHIP RES. 8.2kΩ ±5% 1/10W	NI05822110
RG66		NI05822110	CHIP RES. 8.2kΩ ±5% 1/10W	NI05822110
RG67		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG68		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RG69		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RG70		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RG71		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RG72		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RG73		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG74		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG75		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG76		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RG77		NI05330110	CHIP RES. 33Ω ±5% 1/10W	NI05330110
RG78		NI05330110	CHIP RES. 33Ω ±5% 1/10W	NI05330110
RG90		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RG91		NI05105110	CHIP RES. 1MΩ ±5% 1/10W	NI05105110
RM01		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM02		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM03		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RM04		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RM05		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RM06		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RM07		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM08		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM09		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM10		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM11		NI05392110	CHIP RES. 3.9kΩ ±5% 1/10W	NI05392110
RM12		NI05392110	CHIP RES. 3.9kΩ ±5% 1/10W	NI05392110
RM13		NI05123110	CHIP RES. 12kΩ ±5% 1/10W	NI05123110
RM14		NI05123110	CHIP RES. 12kΩ ±5% 1/10W	NI05123110
RM15		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM16		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM17		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RM18		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RM19		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RM20		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RM21		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RM22		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RM23		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RM24		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RM25		NI05330110	CHIP RES. 33Ω ±5% 1/10W	NI05330110
RM26		NI05330110	CHIP RES. 33Ω ±5% 1/10W	NI05330110
RM31		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM32		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM33		NI05392110	CHIP RES. 3.9kΩ ±5% 1/10W	NI05392110
RM34		NI05392110	CHIP RES. 3.9kΩ ±5% 1/10W	NI05392110
RM35		NI05123110	CHIP RES. 12kΩ ±5% 1/10W	NI05123110
RM36		NI05123110	CHIP RES. 12kΩ ±5% 1/10W	NI05123110
RM37		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM38		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RM39		NI05331110	CHIP RES. 330Ω ±5% 1/10W	NI05331110
RM40		NI05331110	CHIP RES. 330Ω ±5% 1/10W	NI05331110
RM41		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RM42		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RM43		NI05151110	CHIP RES. 150Ω ±5% 1/10W	NI05151110
RM44		NI05151110	CHIP RES. 150Ω ±5% 1/10W	NI05151110
RM60		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
RM61		NI05105110	CHIP RES. 1MΩ ±5% 1/10W	NI05105110
RM62		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RM64		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RM65		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
			PG04-SEMICONDUCTORS	
DE40		HZ20002210	CHIP DIODE DAN202K RΩ	HZ20002210
DM60		HZ20002210	CHIP DIODE DAN202K RΩ	HZ20002210
QE01		HC10053090	IC NJM-2068-DD	HC10053090
QE02		HC10443050	IC TC9459N ELE.VOLUME	HC10443050
QE03		HC10053090	IC NJM-2068-DD	HC10053090
QE05		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QE06		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QE07		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QE08		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QE40		BA20001000	DIG. TRS. DTC114ES/UN4211 10K 10K	BA20001000
QE41		HT108172B0	TRS. 2SA817 O OR Y 600MW -300MA	HT108172B0
QE51		HC10053090	IC NJM-2068-DD	HC10053090
QE52		HC10443050	IC TC9459N ELE.VOLUME	HC10443050
QE53		HC10053090	IC NJM-2068-DD	HC10053090
QE55		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QE56		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QE57		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QE58		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QG01		HC10053090	IC NJM-2068-DD	HC10053090
QG02		HC10443050	IC TC9459N ELE.VOLUME	HC10443050
QG03		HC10053090	IC NJM-2068-DD	HC10053090
QG05		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QG06		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QG07		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QG08		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QG51		HC10053090	IC NJM-2068-DD	HC10053090
QG52		HC10443050	IC TC9459N ELE.VOLUME	HC10443050
QG53		HC10053090	IC NJM-2068-DD	HC10053090
QG55		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QG56		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QG57		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QG58		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QM01		HC10053090	IC NJM-2068-DD	HC10053090
QM02		HC10443050	IC TC9459N ELE.VOLUME	HC10443050
QM03		HC10053090	IC NJM-2068-DD	HC10053090
QM05		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QM06		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QM07		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QM08		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QM30		HC10053090	IC NJM-2068-DD	HC10053090
QM31		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QM32		HT805501B0	TRS. KTC2874 NPN	HT805501B0
QM60		BA20001000	DIG. TRS. DTC114ES/UN4211 10K 10K	BA20001000
QM61		HT600121A0	TRS. KTA1268 PNP (GR)	HT600121A0
			PG04-MISCELLANEOUS	
JE01		YT02060690	TERMINAL 14X14 RA 2L6P BLK AU F-SHIELD	YT02060690
JE02		YT02011710	TERMINAL YKC21-3914 1L1P FS BK AU	YT02011710
JE03		YT02041340	TERMINAL YKC21-4086 2L4P FS BK AU	YT02041340
JE04		YT02060690	TERMINAL 14X14 RA 2L6P BLK AU F-SHIELD	YT02060690
LE01		LY20240480	RELAY MR82-24USR	LY20240480
LE51		LY20240480	RELAY MR82-24USR	LY20240480
LG01		LY20240480	RELAY MR82-24USR	LY20240480
LG51		LY20240480	RELAY MR82-24USR	LY20240480
LM01		LY20240480	RELAY MR82-24USR	LY20240480
LM60		LY20240480	RELAY MR82-24USR	LY20240480

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			PL04-CVBS CUIT BOARD	
			PL04-CAPACITORS	
CF01		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF02		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF03		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF05		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF06		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF07		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CF09		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF10		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF12		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF13		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF14		nsp	CER. 47pF J CH 50V BLK	DD15470300
CF15		nsp	CER. 47pF J CH 50V BLK	DD15470300
CF16		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CF19		nsp	CER. 47pF J CH 50V BLK	DD15470300
CF20		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF21		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CF23		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CF24		nsp	ELECT. 1µF M 50V RA-2	OA10505020
CF27		nsp	CER. 47pF J CH 50V BLK	DD15470300
CF28		nsp	ELECT. 470µF M 6.3V RA-2	OA47700620
CL01		nsp	ELECT. 470µF M 6.3V RA-2	OA47700620
CL02		nsp	ELECT. 470µF M 6.3V RA-2	OA47700620
CL09		nsp	CER. 47pF J CH 50V BLK	DD15470300
CL10		nsp	CER. 47pF J CH 50V BLK	DD15470300
CL11		nsp	CER. 47pF J CH 50V BLK	DD15470300
CL12		nsp	CER. 47pF J CH 50V BLK	DD15470300
CL13		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL14		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL16		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL17		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL19		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL20		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL21		nsp	ELECT. 470µF M 6.3V RA-2	OA47700620
CL22		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL23		nsp	ELECT. 470µF M 6.3V RA-2	OA47700620
CL24		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CL26		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CL28		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL29		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL32		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL34		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL36		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL37		nsp	ELECT. 4.7µF M 50V RA-2	OA47505020
CL38		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL39		nsp	CER. 24pF J CH 50V BLK	DD15240300
CL40		nsp	CER. 22pF J CH 50V BLK	DD15220300
CL44		nsp	ELECT. 1µF M 50V RA-2	OA10505020
CL45		nsp	ELECT. 1µF M 50V RA-2	OA10505020
CL47		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL48	/N	nsp	CER. 15pF J CH 50V BLK	DD15150300
CL49	/N	nsp	CER. 15pF J CH 50V BLK	DD15150300
CL50		nsp	CER. 47pF J CH 50V BLK	DD15470300
CL51		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL52		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL53		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CL55		nsp	ELECT. 1µF M 50V RA-2	OA10505020
CL58		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CL59		nsp	CER. 47pF J CH 50V BLK	DD15470300
CL60		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CL65		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL68		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL71		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL73		nsp	CER. 0.022µF Z 50V	DK18223310
CL79		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL80		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CL81		EQ10601630	ELECT. CAP. 10UF/ 16V	EQ10601630
CL82		nsp	CER. 47pF J CH 50V BLK	DD15470300

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
CL85		nsp	CER. 47pF J CH 50V BLK	DD15470300
CL87		nsp	ELECT. 100µF M 10V RA-2	OA10701020
			PL04-CAPACITORS(COMMON)	
C***			HIGH DIELECTRIC CONSTANT	
			CER.CAPACITOR ±10% 50V :	
			CF25 CL43 CL62 CL83 CL86	
			PL04-RESISTORS	
RF01		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RF02		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RF03		NI05102110	CHIP RES. 75Ω ±5% 1/10W	NI05102110
RF04		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RF05		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RF06		NI05105110	CHIP RES. 1MΩ ±5% 1/10W	NI05105110
RF07		NI05105110	CHIP RES. 1MΩ ±5% 1/10W	NI05105110
RF08		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RF09		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
ʃ		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RF15		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RF16		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RL01		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL02		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL03		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL04		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL05		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL06		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL07		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL08		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL09		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL10		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL11		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL12		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL13		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL14		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL15		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL16		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL18		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RL19		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RL20		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RL21		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RL22		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RL23		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RL24		NI05471110	CHIP RES. 470Ω ±5% 1/10W	NI05471110
RL25		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RL26		NI05104110	CHIP RES. 100kΩ ±5% 1/10W	NI05104110
RL27		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RL28		NI05123110	CHIP RES. 12kΩ ±5% 1/10W	NI05123110
RL29		NI05471110	CHIP RES. 470Ω ±5% 1/10W	NI05471110
RL31		NI05105110	CHIP RES. 1MΩ ±5% 1/10W	NI05105110
RL32		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL33		NI05221110	CHIP RES. 220Ω ±5% 1/10W	NI05221110
RL35		NI05682110	CHIP RES. 6.8kΩ ±5% 1/10W	NI05682110
RL37		NI05472110	CHIP RES. 4.7kΩ ±5% 1/10W	NI05472110
RL38		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RL39		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RL40		NI05560110	CHIP RES. 56Ω ±5% 1/10W	NI05560110
RL41		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RL42		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RL43		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RL44		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RL45		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RL57		NI05103110	CHIP RES. 10kΩ ±5% 1/10W	NI05103110
RL58		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL59		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL60		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL61		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL62		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL63		NI05105110	CHIP RES. 1MΩ ±5% 1/10W	NI05105110
RL64		NI05105110	CHIP RES. 1MΩ ±5% 1/10W	NI05105110

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
RL69		NI05750110	CHIP RES. 75Ω ±5% 1/10W	NI05750110
RL70		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RL71	/N	NI05223110	CHIP RES. 22kΩ ±5% 1/10W	NI05223110
RL72		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
ʃ		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RL84		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RL85		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
			PL04-SEMICONDUCTORS	
DL01		HZ20002210	CHIP DIODE DAN202K RΩ	HZ20002210
DL05	/N	HZ20001210	CHIP DIODE DAP202K	HZ20001210
QF01		HC10223090	IC NJM2534M TE1	HC10223090
QF02		HC10210090	IC NJM2296M	HC10210090
QF03		HC10224090	IC NJM2535M TE1	HC10224090
QF04		HC709449B0	IC 74HC4094 16PIN DIP	HC709449B0
QL01		HC10223090	IC NJM2534M TE1	HC10223090
QL02		HC10210090	IC NJM2296M	HC10210090
QL03		HC10224090	IC NJM2535M TE1	HC10224090
QL04		HC10377030	IC OSD IC LC74781	HC10377030
QL05		HC10224090	IC NJM2535M TE1	HC10224090
QL06		HC10221210	IC BA7622F-E2	HC10221210
QL07		HC709449B0	IC 74HC4094 16PIN DIP	HC709449B0
QL08		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QL09		HT10001000	TRS. A1048 A933S A1267 ETC.	HT10001000
QL10		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QL11		BA10001000	DIG. TRS. DTA114ES/UN4111 10K 10K	BA10001000
QL12		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QL13		BA20001000	DIG. TRS. DTC114ES/UN4211 10K 10K	BA20001000
QL14		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QL15		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QL16		BA20001000	DIG. TRS. DTC114ES/UN4211 10K 10K	BA20001000
QL18	/N	BA20004000	DIG. TRS. DTC114TS/UN4215 10K	BA20004000
QL19	/N	BA20004000	DIG. TRS. DTC114TS/UN4215 10K	BA20004000
QL20	/N	BA10001000	DIG. TRS. DTA114ES/UN4111 10K 10K	BA10001000
QL21		HC700000Z0	IC CMOS 74HC00 FLAT	HC700000Z0
QL22		HX316221A0	CHIP TR. 2SC1622AD17	HX316221A0
			PL04-MISCELLANEOUS	
JL01		YT02011690	TERMINAL YKC21-3913 1L1 FS AU	YT02011690
JL02		YT02021710	TERMINAL YKC21-4074 2L2 FS AU	YT02021710
JL03		YT02041310	TERMINAL YKC21-3701 1L4 FG AU	YT02041310
JL04		YT02041310	TERMINAL YKC21-3701 1L4 FG AU	YT02041310
LL01		FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LL02		FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LL03		FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LL04		LU15333010	CHIP INDUCTANCE NL252018 33µH	LU15333010
XL01		JX14001260	CRYSTAL AT49/14.31818MHz(TP)	JX14001260
XL02	/N	JX17001260	CRYSTAL AT49 17.7MHz	JX17001260
			PN14-RN47 BDCIR CUIT BOARD	
RN47		HP00029230	VARISTOR FOR HEAT SENS. 100C BD	HP00029230
			PN24-RN62 BF CUIT BOARD	
RN62		HP00042230	VARISTOR FOR FAN SENS. 80C BF	HP00042230
			PN54-RN49 BD CUIT BOARD	
RN49		HP00029230	VARISTOR FOR HEAT SENS. 100C BD	HP00029230

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			PN64-RN86 BF	
			CUIT BOARD	
RN86		HP00042230	VARISTOR	HP00042230
			FOR FAN SENS. 80C BF	
			PP04-AUX	
			CUIT BOARD	
			PP04-CAPACITORS	
CP03		nsp	CER. 0.01µF Z 50V	DK18103310
CP04		nsp	CER. 0.01µF Z 50V	DK18103310
CP05		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CP06		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CP07		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CP08		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CP16		nsp	CER. 0.01µF Z 50V	DK18103310
CP17		nsp	ELECT. 100µF M 10V RA-2	OA10701020
			PP04-CAPACITORS(COMMON)	
C***			HIGH DIELECTRIC CONSTANT	
			CER.CAPACITOR ±10% 50V :	
			CP01 CP02	
RP11		nsp	RES. 75Ω ±5% 1/6W	GD05750160
RP12		nsp	RES. 75Ω ±5% 1/6W	GD05750160
RP14		nsp	RES. 75Ω ±5% 1/6W	GD05750160
			PP04- RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RP01-RP06 RP16	
JP01		YJ15000200	OPT. RECEIVER CONNE. JFJ400	YJ15000200
QP01		HC10008090	IC NJM4558D-D	HC10008090
			PP94-HEADPHONE	
			CUIT BOARD	
JP99	/N	YJ01004330	JACK HLJ2307-01-3163 GOLD	YJ01004330
			PQ04-A-FUNCTION-V	
			CUIT BOARD	
			PQ04-CAPACITORS	
CQ01	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ02	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ07	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ08	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ13	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ14	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ19	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ20	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ25	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ26	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ31	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ32	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ39		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CQ40		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CQ43		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CQ44		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CQ50		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CQ51		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CQ52		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CQ53		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CQ64		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CQ65		nsp	ELECT. 100µF M 16V RA-2	OA10701620
			PQ04-CAPACITORS(COMMON)	
C***			HIGH DIELECTRIC CONSTANT	
			CER.CAPACITOR ±10% 50V :	
			CQ37 CQ38 CQ41 CQ42 CQ56	
			CQ59-CQ63	

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			PQ04- RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RQ01-RQ04	
			RQ09-RQ12 RQ17-RQ20	
			RQ25-RQ28 RQ33-RQ36	
			RQ41-RQ44 RQ49-RQ64	
			PQ04-SEMICONDUCTORS	
QQ01		HC10124090	IC NJU7312L ANALOG SWITCH	HC10124090
QQ02		HC10124090	IC NJU7312L ANALOG SWITCH	HC10124090
QQ03		HC10021090	IC NJM4560D-D	HC10021090
			PQ04-MISCELLANEOUS	
JQ01		YT02060670	TERMINAL 14X14 RA 2L6 WH+RE AU F-GROUND	YT02060670
JQ02		YT02060670	TERMINAL 14X14 RA 2L6 WH+RE AU F-GROUND	YT02060670
JQ03		YT02041280	TERMINAL 14X14 RA 2L4 WH+RE AU F-GROUND	YT02041280
			PS04-AUDIO FUNCTION	
			CUIT BOARD	
			PS04-CAPACITORS	
CS07	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CS08	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CS13	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CS14	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CS19	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CS20	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CS27		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS28		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS31		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS32		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS35		nsp	CER. 0.01µF Z 50V	DK18103310
CS36		nsp	CER. 0.01µF Z 50V	DK18103310
CS37		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS38		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS39		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS51		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CS52		nsp	ELECT. 100µF M 16V RA-2	OA10701620
			PS04-CAPACITORS(COMMON)	
C***			HIGH DIELECTRIC CONSTANT	
			CER.CAPACITOR ±10% 50V :	
			CS25 CS26 CS29 CS30 CS43	
			CS46-CS50	
			PS04-RESISTORS	
RS09		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RS10		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RS11		NI05274110	CHIP RES. 270kΩ ±5% 1/10W	NI05274110
RS12		NI05274110	CHIP RES. 270kΩ ±5% 1/10W	NI05274110
RS13		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RS14		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RS17		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RS18		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RS19		NI05274110	CHIP RES. 270kΩ ±5% 1/10W	NI05274110
RS20		NI05274110	CHIP RES. 270kΩ ±5% 1/10W	NI05274110
RS21		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RS22		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RS25		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RS26		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RS27		NI05274110	CHIP RES. 270kΩ ±5% 1/10W	NI05274110
RS28		NI05274110	CHIP RES. 270kΩ ±5% 1/10W	NI05274110
RS29		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RS30		NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RS33		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RS34		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RS35		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RS36		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
RS37		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RS38		NI05102110	CHIP RES. 1kΩ ±5% 1/10W	NI05102110
RS39		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RS40		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RS41		NI05274110	CHIP RES. 270kΩ ±5% 1/10W	NI05274110
RS42		NI05274110	CHIP RES. 270kΩ ±5% 1/10W	NI05274110
RS43		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RS44		NI05473110	CHIP RES. 47kΩ ±5% 1/10W	NI05473110
RS46	/N	NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RS49		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RS51	/N	NI05000110	CHIP RES. 0Ω ±5% 1/10W	NI05000110
RS54		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RS55		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
RS56		NI05101110	CHIP RES. 100Ω ±5% 1/10W	NI05101110
			PS04-MISCELLANEOUS	
QS01		HC10125090	IC NJU7313L ANALOG SWITCH	HC10125090
QS02		HC10125090	IC NJU7313L ANALOG SWITCH	HC10125090
QS03		HC10029090	IC NJM4560M	HC10029090
			PS04-MISCELLANEOUS	
JS01	/N	YT02041280	TERMINAL 14X14 RA 2L4 WH+RE AU F-GROUND	YT02041280
JS02		YT02060670	TERMINAL 14X14 RA 2L6 WH+RE AU F-GROUND	YT02060670
JS05		YP06902270	PLUG 05MQ-ST-L	YP06902270
			PS54-MULTI CH INPUT CUIT BOARD	
			PS54-CAPACITORS	
CQ71	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ72	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ73		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CQ74		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CQ77		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CQ78		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CQ79	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CQ81		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CQ82		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CQ85		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CQ86		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS71	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CS72	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CS73		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CS74		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CS75		nsp	CER. 0.01µF Z 50V	DK18103310
CS76		nsp	CER. 0.01µF Z 50V	DK18103310
CS77		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS78		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS79	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CS80	/N	OF15471540	FILM 470pF TP 100V PP APSV	OF15471540
CS81		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CS82		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CS85		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS86		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CS95		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CS96		nsp	ELECT. 100µF M 16V RA-2	OA10701620
			PS54-CAPACITORS(COMMON)	
C***			HIGH DIELECTRIC CONSTANT CER.CAPACITOR ±10% 50V : CQ80 CS90-CS94	
			PS54-RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : RQ71-RQ74 RQ77-RQ86 RS71-RS74 RS77-RS82 RS85-RS89	

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			PS54-SEMICONDUCTORS	
QQ71		HC10053090	IC NJM-2068-DD	HC10053090
QQ72		HC10053090	IC NJM-2068-DD	HC10053090
QS70		HC10123090	IC NJU7311L ANALOG SWITCH	HC10123090
QS71		HC10053090	IC NJM-2068-DD	HC10053090
QS72		HC10053090	IC NJM-2068-DD	HC10053090
			PS54-MISCELLANEOUS	
JS70		YT02041330	TERMINAL YKC21-3601 2L4P FG BK AU	YT02041330
JS71		YT02041330	TERMINAL YKC21-3601 2L4P FG BK AU	YT02041330
			PX04-S-VIDEO CUIT BOARD	
			PX04-CAPACITORS	
CX05		nsp	CER. 47pF J CH 50V BLK	DD15470300
CX06		nsp	CER. 47pF J CH 50V BLK	DD15470300
CX07		nsp	CER. 47pF J CH 50V BLK	DD15470300
CX08		nsp	CER. 47pF J CH 50V BLK	DD15470300
CX09		nsp	ELECT. 470µF M 6.3V RA-2	OA47700620
CX10		nsp	ELECT. 22µF M 16V RA-2	OA22601620
CX11		nsp	ELECT. 470µF M 6.3V RA-2	OA47700620
CX12		nsp	ELECT. 22µF M 16V RA-2	OA22601620
CX25 ∫ CX34		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX35		nsp	ELECT. 470µF M 6.3V RA-2	OA47700620
CX36		nsp	ELECT. 22µF M 16V RA-2	OA22601620
CX37		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX38		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX39		nsp	ELECT. 470µF M 6.3V RA-2	OA47700620
CX40		nsp	ELECT. 22µF M 16V RA-2	OA22601620
CX41		nsp	CER. 0.01µF Z 50V	DK18103310
CX42		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX44		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX45		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CX48		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CX51		nsp	CER. 47pF J CH 50V BLK	DD15470300
CX53		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX54		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX55		nsp	CER. 0.01µF Z 50V	DK18103310
CX56		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX57		nsp	CER. 0.01µF Z 50V	DK18103310
CX58		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX61		nsp	CER. 0.01µF Z 50V	DK18103310
CX62		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX64		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX65		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CX68		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CX69		nsp	CER. 0.01µF Z 50V	DK18103310
CX71		nsp	CER. 47pF J CH 50V BLK	DD15470300
CX72		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX73		nsp	CER. 0.01µF Z 50V	DK18103310
CX74		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX75		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX79		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CX80		nsp	ELECT. 1µF M 50V RA-2	OA10505020
CX81		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX83		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CX84		nsp	CER. 0.01µF Z 50V	DK18103310
CX85		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX86		nsp	CER. 0.01µF Z 50V	DK18103310
CX87		nsp	CER. 0.01µF Z 50V	DK18103310
CX88		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CX89		nsp	CER. 0.01µF Z 50V	DK18103310
CX91		nsp	CER. 20pF J CH 50V BLK	DD15200300
CX92		nsp	CER. 20pF J CH 50V BLK	DD15200300
CX93		nsp	CER. 47pF J CH 50V BLK	DD15470300

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			PX04-RESISTORS	
RX01				
∫		nsp	RES. 75Ω ±5% 1/6W	GD05750160
RX20				
RX29		nsp	RES. 75Ω ±5% 1/6W	GD05750160
RX37		nsp	RES. 75Ω ±5% 1/6W	GD05750160
RX38		nsp	RES. 75Ω ±5% 1/6W	GD05750160
RX39		nsp	RES. 75Ω ±5% 1/6W	GD05750160
RX40		nsp	RES. 75Ω ±5% 1/6W	GD05750160
			PX4-RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W :	
			RX28 RX30-RX34 RX36	
			PX04-SEMICONDUCTORS	
QX01		HC10143090	IC NJM2234D DIP	HC10143090
QX02		HC10227090	IC NJM2595D 5IN30UT VIDEO SEL	HC10227090
QX03		HC10143090	IC NJM2234D DIP	HC10143090
QX04		HC10227090	IC NJM2595D 5IN30UT VIDEO SEL	HC10227090
QX05		HC10221090	IC NJM2249D	HC10221090
QX06		HC10222090	IC NJM2235D	HC10222090
QX07		HC10220210	IC BA7622 DIP	HC10220210
			PX04-MISCELLANEOUS	
JX01		YT02021520	TERMINAL 2P S-VIDEO JACK GL	YT02021520
JX02		YT02021520	TERMINAL 2P S-VIDEO JACK GL	YT02021520
JX03		YT02030550	TERMINAL 3P S-VIDEO JACK GL	YT02030550
JX04		YT02030550	TERMINAL 3P S-VIDEO JACK GL	YT02030550
JX07		YP06902270	PLUG 05MQ-ST-L	YP06902270
LX01		FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LX02		FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
			PY04-CONNECTOR	
			CUIT BOARD	
			PY04-CAPACITORS	
C851		nsp	CER. 0.01µF Z 50V	DK18103310
C852		nsp	CER. 0.01µF Z 50V	DK18103310
⚠ C853		nsp	ELECT. 2200µF M 35V RA-2	OA22803520
⚠ C854		nsp	ELECT. 2200µF M 35V RA-2	OA22803520
C855		nsp	CER. 0.01µF Z 50V	DK18103310
C856		nsp	CER. 0.01µF Z 50V	DK18103310
C859		nsp	ELECT. 100µF M 16V RA-2	OA10701620
C860		nsp	ELECT. 100µF M 16V RA-2	OA10701620
C861		nsp	CER. 0.01µF Z 50V	DK18103310
C862		nsp	CER. 0.01µF Z 50V	DK18103310
⚠ C863		EA22901010	ELECT CAP. 22000µF 10V	EA22901010
⚠ C864		nsp	ELECT. 2200µF M 35V RA-2	OA22803520
C865		nsp	CER. 0.01µF Z 50V	DK18103310
C866		nsp	CER. 0.01µF Z 50V	DK18103310
C867		nsp	CER. 0.01µF Z 50V	DK18103310
C868		nsp	CER. 0.01µF Z 50V	DK18103310
C869		nsp	ELECT. 100µF M 16V RA-2	OA10701620
C870		nsp	ELECT. 100µF M 16V RA-2	OA10701620
C871		nsp	CER. 0.01µF Z 50V	DK18103310
C872		nsp	CER. 0.01µF Z 50V	DK18103310
C873		nsp	ELECT. 100µF M 16V RA-2	OA10701620
C874		nsp	ELECT. 100µF M 10V RA-2	OA10701020
C875		nsp	ELECT. 100µF M 16V RA-2	OA10701620
C876		nsp	CER. 0.01µF Z 50V	DK18103310
C877		nsp	CER. 0.01µF Z 50V	DK18103310
C878		nsp	ELECT. 100µF M 16V RA-2	OA10701620
C879		nsp	ELECT. 100µF M 16V RA-2	OA10701620
C901	/N	nsp	ELECT. 10µF M 50V RA-2	OA10605020
C902	/N	nsp	CER. 0.01µF Z 50V	DK18103310
C903	/N	nsp	ELECT. 10µF M 50V RA-2	OA10605020
C912	/N	nsp	ELECT. 10µF M 50V RA-2	OA10605020
C914	/N	nsp	CER. 22pF J CH 50V BLK	DD15220300
C915	/N	nsp	CER. 27pF J CH 50V BLK	DD15270300
C951	/N	nsp	ELECT. 4.7µF M 50V RA-2	OA47505020

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
C952	/N	nsp	ELECT. 4.7µF M 50V RA-2	OA47505020
C955	/N	nsp	ELECT. 4.7µF M 50V RA-2	OA47505020
C956	/N	nsp	ELECT. 4.7µF M 50V RA-2	OA47505020
C957	/N	nsp	ELECT. 4.7µF M 50V RA-2	OA47505020
C958	/N	nsp	ELECT. 4.7µF M 50V RA-2	OA47505020
C959	/N	nsp	CER. 0.01µF Z 50V	DK18103310
C960	/N	nsp	CER. 0.01µF Z 50V	DK18103310
CT07	/N	nsp	CER. 0.01µF Z 50V	DK18103310
CT08	/N	nsp	CER. 0.01µF Z 50V	DK18103310
CT09	/N	nsp	ELECT. 100µF M 16V RA-2	OA10701620
CW01		nsp	ELECT. 10µF 16V ARA	OA10601650
CW02		nsp	ELECT. 10µF 16V ARA	OA10601650
CW05		nsp	ELECT. 10µF 16V ARA	OA10601650
CW06		nsp	ELECT. 10µF 16V ARA	OA10601650
CW31		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CW32		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CW35		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CW36		nsp	ELECT. 10µF M 50V RA-2	OA10605020
CW37		nsp	CER. 0.01µF Z 50V	DK18103310
CW38		nsp	CER. 0.01µF Z 50V	DK18103310
CY01		nsp	CER. 0.01µF Z 50V	DK18103310
			PY04-CAPACITORS(COMMON)	
C***			HIGH DIELECTRIC CONSTANT	
			CER.CAPACITOR ±10% 50V :	
			C904-C906 C953 C954 CM83	
			CM86 CT02 CT03	
			PY04- RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : R901-R904	
			R951-R962 RM81 RM83-RM85	
			RT01 RT02 RW01-RW04	
			RW31-RW34	
			PY04-SEMICONDUCTORS	
⚠ D851				
D857		nsp	DIODE 1D3 1A/200V	HD20002710
⚠ D858				
D859		nsp	DIODE 1GWJ43	HD20031050
D860		nsp	DIODE 1D3 1A/200V	HD20002710
⚠ D861		HE20011290	DIODE S2VB20	HE20011290
D862		nsp	DIODE 1D3 1A/200V	HD20002710
D863		nsp	DIODE 1D3 1A/200V	HD20002710
D864		nsp	DIODE 1D3 1A/200V	HD20002710
D865		HD30301000	ZENER DIODE MTZJ3.0B	HD30301000
D866		nsp	DIODE 1D3 1A/200V	HD20002710
D867		nsp	DIODE 1D3 1A/200V	HD20002710
D868		nsp	DIODE 1D3 1A/200V	HD20002710
DM81				
∫		nsp	DIODE	HD20002000
DM93			1SS176 MA165 1SS254 30V 0.1A	
DT01	/N	nsp	DIODE 1D3 1A/200V	HD20002710
Q851		HC3891509F	IC REG. NJM7815FA +15V 1A	HC3891509F
Q852		HC3991509F	IC REG. NJM7915FA	HC3991509F
Q853		HC3890509F	IC REG. NJM7805FA +5V	HC3890509F
Q854		HC3990509F	IC REG. NJM7905FA	HC3990509F
Q855		HC3890509F	IC REG. NJM7805FA +5V	HC3890509F
Q856		HC36J3321F	IC REG. BA033T +3.3V 1A	HC36J3321F
Q857		HT347932A0	TRS. 2SC4793 O Y	HT347932A0
Q858		HT347932A0	TRS. 2SC4793 O Y	HT347932A0
Q901	/N	HC10404030	IC LC72722 RDS DECODER	HC10404030
Q902	/N	HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
Q903	/N	BA20001000	DIG. TRS. DTC114ES/UN4211 10K 10K	BA20001000
Q904	/N	BA10001000	DIG. TRS. DTA114ES/UN4111 10K 10K	BA10001000
Q951	/N	HC10008090	IC NJM4558D-D	HC10008090
QM81		HC709449B0	IC 74HC4094 16PIN DIP PHILIPS	HC709449B0

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
QM82		HC709449B0	IC 74HC4094 16PIN DIP PHILIPS	HC709449B0
QM83 ∫ QM88		BA10001000	DIG. TRS. DTA114ES/UN4111 10K 10K	BA10001000
QM89		BA20001000	DIG. TRS. D TC114ES/UN4211 10K 10K	BA20001000
QM90		BA10001000	DIG. TRS. DTA114ES/UN4111 10K 10K	BA10001000
QT02	/N	BA20001000	DIG. TRS. DTC114ES/UN4211 10K 10K	BA20001000
QT03	/N	HC3891209F	IC REG. NJM7812FA +12V	HC3891209F
QT04	/N	BA10001000	DIG. TRS. DTA114ES/UN4111 10K 10K	BA10001000
QW01		HC10053090	IC DUAL NJM2068DD	HC10053090
QW31		HC10008090	IC NJM4558D-D	HC10008090
QY01		HC736805B0	IC TC74HC368AP	HC736805B0
			PY04-MISCELLANEOUS	
⚠ F851	/N	FS20200200	FUSE T2.0A 250V TR5	FS20200200
⚠ F852	/N	FS20200200	FUSE T2.0A 250V TR5	FS20200200
⚠ F853	/N	FS20200200	FUSE T2.0A 250V TR5	FS20200200
⚠ F854	/N	FS20200200	FUSE T2.0A 250V TR5	FS20200200
JY04		YJ06030450	JACK BASE POST 12P B12P-MQ-C	YJ06030450
JY05		YJ06030450	JACK BASE POST 12P B12P-MQ-C	YJ06030450
JY06		YJ06031800	JACK JACK B04P-MQ-C	YJ06031800
JY07		YJ06030450	JACK BASE POST 12P B12P-MQ-C	YJ06030450
JY09		YJ06031810	JACK JACK B06MQ-C	YJ06031810
JY11		YJ06030450	JACK BASE POST 12P B12P-MQ-C	YJ06030450
JY13		YJ06030450	JACK BASE POST 12P B12P-MQ-C	YJ06030450
JY14		YJ06030450	JACK BASE POST 12P B12P-MQ-C	YJ06030450
JY15		YJ06030440	JACK BASE POST 9P B09P-MQ-C	YJ06030440
JY17		YJ06030440	JACK BASE POST 9P B09P-MQ-C	YJ06030440
L901	/N	FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
L911	/N	FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LT05	/N	FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010
LT06	/N	FM12223010	EMI FILTER DSS306-91-F-223Z	FM12223010

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.